

**PROJECTED DEFENSE PURCHASES:
DETAIL BY INDUSTRY AND STATE**

Calendar Years 1997 through 2003



June 1997

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FOREWORD

Projected Defense Purchases: Detail by Industry and State is issued by the Office of the Secretary of Defense (OSD). The estimates presented in the report are produced by the Economic and Manpower Analysis Division, Office of the Director for Program Analysis and Evaluation, Office of the Secretary of Defense.

The report provides projections of direct and indirect (or defense-related) purchases from 50 major manufacturing industries, and estimates of direct and indirect defense spending in each state. An introduction presents a brief overview of the definitions, budgetary concepts, and expenditure categories used in developing the estimates, and offers some guidelines for interpreting them. The tabular material is divided into three sections:

Section I: Summary Tables – Industry Expenditures and Employment,
Individual States and Entire United States

Section II: Projections for Selected Industries

Section III: Individual State Projections

Descriptions of table formats accompany the projections.

Additional copies of this report may be obtained from the Superintendent of Documents, Government Printing Office, Washington, D.C. 20402. A feedback form for comments is at the end of the report.

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Reader's Note

With this edition of *Projected Defense Purchases: Detail by Industry and State*, the Department of Defense inaugurates a new version of the input-output model used to estimate defense and defense-related expenditures. The revisions to the model affect the estimates for specific industries, in large part because the industry definitions have changed as described below. In particular:

- The input-output model now includes 320 industries and is maintained by Interindustry Forecasting at the University of Maryland (INFORUM), replacing the 429-industry model that was maintained by DRI/McGraw-Hill. Because fewer industries are represented in the model, the definitions of some industries have changed. (The differences are largest in the agriculture and service sectors.)
- The model now reflects the standard industrial classification (SIC) system promulgated by the Office of Management and Budget in 1987, rather than the 1982 SIC system, which underlay previous projections. This change also affects the definition of industries, particularly in the electronics industry.

Both of these modifications affect projections for individual industries. For example, one of the largest industrial sectors in the earlier projections was the Radio and Television Communications Equipment sector, which included electronic sensors used in many defense applications. Because the 1987 industrial classification system contains more detail on electronics sectors, it is now possible to break out purchases of sensors from the remainder of radio and television communications equipment, and to produce projections for this individual industry.

In addition, the industries from which research and development purchases are made can now be better identified. Whereas funding for bench research and basic exploration was formerly allocated to the major weapons-producing sectors (e.g., aircraft, missiles, radio and TV equipment, etc.), it now is allocated to the research laboratory, engineering, and architectural services industries.

The restructuring was so substantial that the model has been renamed. It is now called the Defense Employment and Purchases Projection System, or DEPPS. **The projections presented in this report should not be compared with estimates generated by the former model, for states or for industries.**

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INTRODUCTION AND HIGHLIGHTS

This report presents estimates of defense purchases during calendar years 1997-2003 from 50 major industries that are major defense suppliers. The report also provides projections of defense-related employment and of defense and defense-related spending for each of the 50 states and the District of Columbia during 1997-2003. The estimates are based on the President's budget submission of February 1997, and on the geographic distribution of the major components of defense spending in the recent past. A description of the model and data used to generate the estimates may found in supporting documentation.¹

The figures reported here are projections; they do not necessarily reflect what actual defense expenditures will prove to be in various industries or states in future years. Purchases from particular industries will depend upon the size and composition of the defense budget enacted by the Congress; the location of purchases will be determined not only by the level of defense spending, but also by the location of industries and by competition among firms within industries, both for prime contracts and for subcontracts.² The projections are therefore intended to serve as benchmarks: *they describe the future pattern of defense and defense-related expenditures, assuming that each state's shares of the various components of defense activity remain as they were in the recent past.*

Since the last set of projections was published, the input-output model used to produce them has been completely rebuilt, and the definitions of industries for which projections are reported have changed. (The new projections divide the economy into 320 industries, rather than the 429 industries employed in the previous model.) The restructured model will produce more accurate and useful projections; *the changes are significant enough to render comparisons with past projections inappropriate, for states as well as industries.*

¹ Forthcoming from Economic and Manpower Analysis Division, Office of the Director, Program Analysis and Evaluation, Office of the Secretary of Defense, Room 2D311, Pentagon, Washington, D.C. 20301-1800, telephone number (703) 697-2999.

² The Directorate for Information Operations and Reports in the Washington Headquarters Services publishes comprehensive data on prime contract awards and personnel expenditures, by state, in a volume entitled *Atlas/State Data Abstract for the United States*. The edition covering fiscal year 1996 is available from the Superintendent of Documents, Government Printing Office, Washington, D.C. 20402.

Definitions and Coverage

The estimates presented in the following sections consider both “direct” and “indirect” defense expenditures. Direct defense expenditures are those that the Department of Defense (DoD) itself makes. Examples include purchases of goods and services, as well as military and civilian pay.

Indirect (or defense-related) expenditures, in contrast, represent purchases — generated throughout the economy — of items used to produce goods bought by DoD. That is, they reflect the costs of materials, tools, and parts that prime contractors buy from their suppliers in order to perform work for which DoD has contracted. Those sales, in turn, trigger subsequent rounds of transactions, as subcontractors purchase goods and services from their major suppliers and those firms place orders with companies at lower tiers of the production chain. It is to this sequence of purchases — of goods and services from subcontractors and lower-tier suppliers — that the term “indirect defense purchases” applies.

“Indirect defense purchases resulting from direct pay,” shown in the state-level tables in Section III, refer to the production of goods and services consumed by DoD’s civilian and military employees. Estimates of these expenditures are included in the statewide tables because the concept has been of interest to planning agencies and others concerned with local economic development. The methods used to generate these estimates are viewed as experimental, however, and are still under development. Indirect defense purchases resulting from direct pay are *not* included in the industry estimates reported in Section II.

The employment estimates include DoD civilian employment and employment resulting from direct and indirect DoD purchases of goods and services. Employment generated by indirect purchases resulting from direct pay (i.e., by personal consumption expenditures) is *not* included in the estimates.

Budget Concept Employed. The DEPPS projections are expressed in terms of outlays. Outlays represent disbursements of funds made during the course of a year. In contrast, budget authority is the amount of money that Congress authorizes DoD to obligate in any given year. Budget authority differs from outlays in that contractual obligations (which must be within the limits set by budget authority) often call for payments to be spread over a period of years, as work is completed. (Budget authority for RDT&E and procurement projects, in particular, tends to be disbursed over several years.) During periods of budget growth, therefore, budget authority tends to exceed outlays in any given year.

Coverage. The federal budget is divided into a number of sections (called “functional categories”), each containing programs serving a common purpose. National security-related programs are grouped into Functional Category 050 (National Defense). This category includes all of the Defense Department’s military programs plus national security programs administered by other federal departments, such as the Department of Energy. It excludes nonmilitary

programs managed by the Department of Defense (for example, highway bridge inspection projects conducted by the Army Corps of Engineers).

The DEPPS projections are based on a narrower budget grouping, Functional Category 051 (Department of Defense, Military). This category includes all of the Defense Department's military programs, but excludes national security programs administered by other agencies and DoD programs serving civil functions (principally public works projects of the U.S. Army Corps of Engineers). The projections also include disbursements of military retirement pay.

The defense budget (defined here to include only those programs falling within Functional Category 051) is partitioned into five major accounts: military personnel; operations and maintenance (O&M); procurement; research, development, test, and evaluation (RDT&E); and military construction. The titles of these accounts are reasonably descriptive of the types of expenses they cover:

- The *military personnel* account covers the pay of active-duty service members and reservists as well as some other personnel-related expenses, such as permanent change-of-station travel and purchases of military uniforms. Also included in this account is DoD's share of the government's annual payments into the Military Retirement Fund (see below).
- The *O&M* account funds the day-to-day operations of the defense establishment. Money from this account goes to purchase fuel and other consumable items and to pay all but a small share of DoD's civilian work force.
- The *procurement* account covers purchases of weapons and equipment, and other military capital goods.
- The *RDT&E* account pays for the development and testing of new military systems, and for other research activities and associated civilian pay.
- The *military construction* account covers the cost of constructing military facilities and of providing housing for military personnel and their dependents.

The DEPPS projections include disbursements of military retirement pay from the Military Retirement Fund (Functional Category 602 in the *Budget of the United States Government*). This trust fund receives payments from the military personnel account of the defense budget (i.e., from Functional Category 051) as well as from the general fund of the federal budget; the balance in the Military Retirement Fund is invested in U.S. government securities and earns interest. Currently, annual disbursements from the Military Retirement Fund are larger than DoD's annual payments into it.

The DEPPS projections include all outlays from the DoD military personnel account *except* payments into the Military Retirement Fund. Military pay and annuity payments to military retirees have different geographical patterns; accordingly, the projections use two different, historically-based distribution rules — one for military pay and one for retirement pay. Because the DEPPS projections include disbursements of retirement pay, the summations across states of direct defense purchases slightly exceed outlays from Category 051.

Highlights of the Projections

The composition of projected defense purchases is quite different from the composition of purchases in the nondefense economy. Figure 1 presents information on the composition of projected defense and nondefense final purchases in 1998, excluding salaries. A large proportion of defense purchases — 55 percent — are made from manufacturing industries. In contrast, only about 34 percent of nondefense final purchases are made from the manufacturing sector of the economy. Services make up about 40 percent of defense final purchases, but about 60 percent of nondefense final purchases. (These are non-labor purchases; if DoD personnel costs are included, the share of purchases from manufacturing industries is roughly equal to the economy-wide share.)

Figure 2 presents information on the composition of estimated defense and nondefense indirect purchases — the sales of tools, materials, and supplies used as intermediate goods in the production process. Indirect defense purchases more nearly resemble their nondefense counterparts than do direct defense purchases; manufacturing accounts for about 41 percent of projected defense indirect purchases, and for about 40 percent of projected nondefense indirect purchases. Services account for half of projected defense and nondefense indirect purchases.

The first table in Section I of this report lists the 50 manufacturing industries with the largest (direct plus indirect) projected defense production. While some of these industries are armaments or defense-oriented (shipbuilding, tanks and tank components, aircraft, and guided missiles, for example), a significant share of defense purchases are made directly or indirectly from industries not so obviously oriented toward defense activities (e.g., electronics, blast furnaces and steel mills, motor vehicle parts, industrial controls, and telephone and telegraph equipment).

Defense-Related Employment. Defense-related civilian employment (including the civilian work force of the Department of Defense) represents about 2 percent of projected total U.S. civilian employment. The composition of defense-related civilian employment in 1998 differs somewhat from that of nondefense employment. The differences reflect the manufacturing intensity of defense purchases, as well as specific employment patterns of the individual industries from which defense purchases are made.

Occupations primarily associated with manufacturing industries (e.g., precision production, craft, and repair) account for a large share of defense-related employment, while

Figure 1.
Composition of Defense and Non-Defense Purchases for 1998

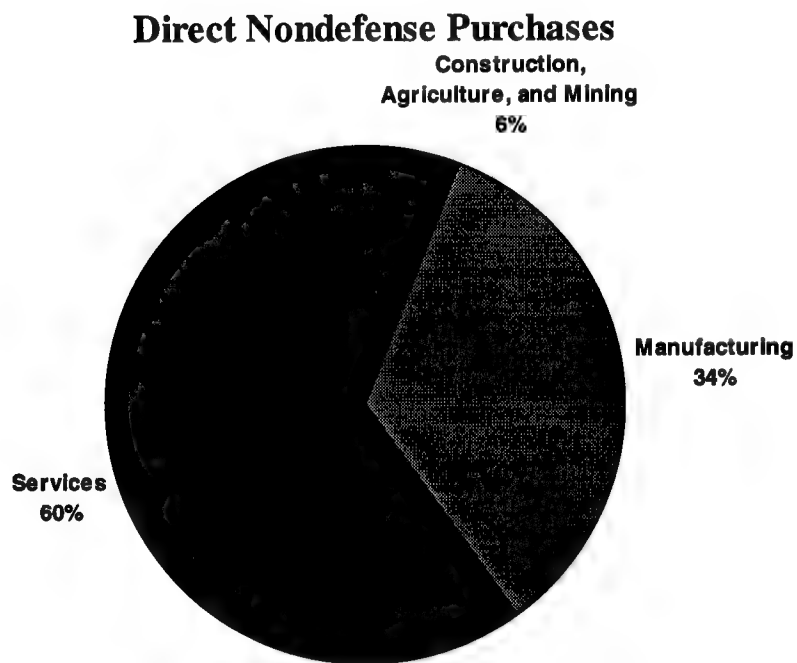
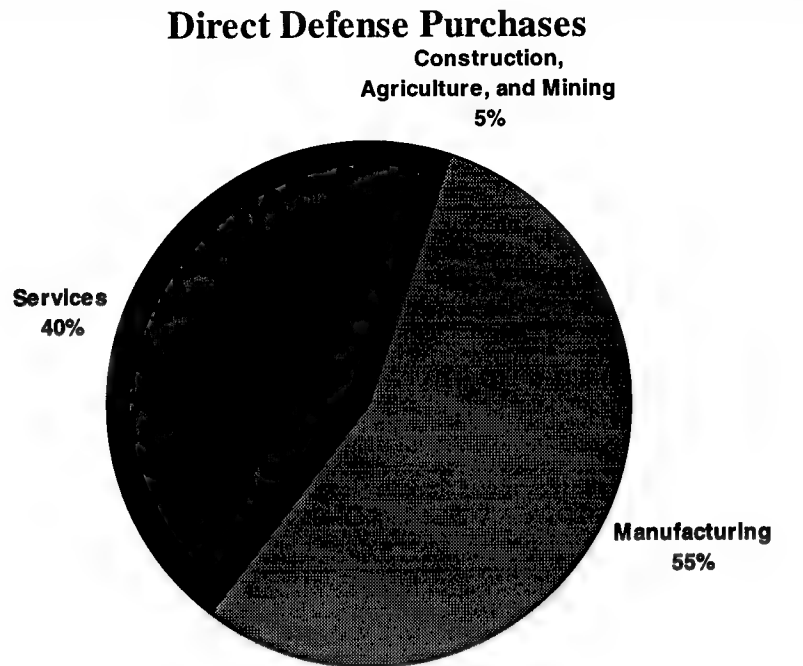
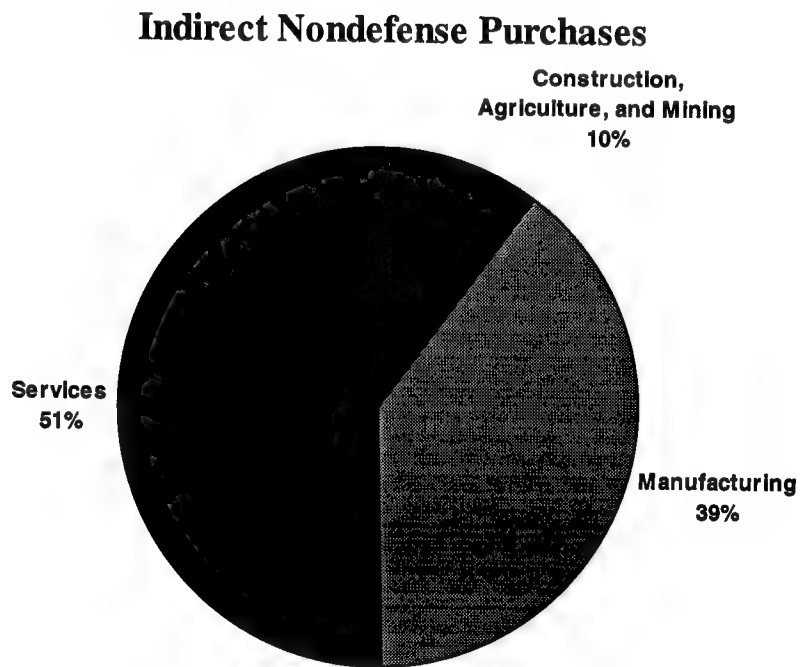
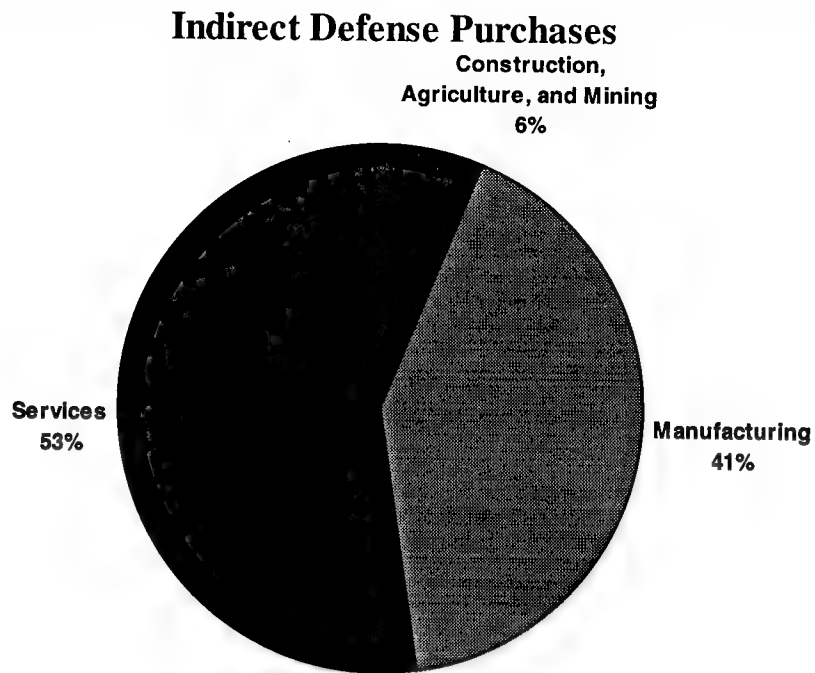


Figure 2.
Composition of Defense and Non-Defense Purchases for 1998



service and agriculture workers account for a large proportion of nondefense employment (see Figure 3). Engineering workers also account for a somewhat larger share of defense-related employment (7 percent) than they do of nondefense employment (1 percent). More detailed tabulations of defense-related employment (including a breakout of engineering and scientific personnel by specialty) are provided in Section I.

Defense Expenditures by State. Table 1 presents estimates of direct, indirect, and total (direct plus indirect) per capita defense expenditures in 1998 for each of the nine U.S. census divisions, and for the United States as a whole. For each region and each expenditure category, the table provides both an estimate for the census region and a range of estimates corresponding to the upper and lower bounds of the estimates for the individual states within the region.

The geographic distribution of defense expenditures reflects both the distribution of military personnel and DoD civilian employees, and that of the industries that make defense goods. While New England, for example, ranks seventh among the nine regions in defense pay per capita, it ranks third in total projected defense purchases and third in total projected direct expenditures.

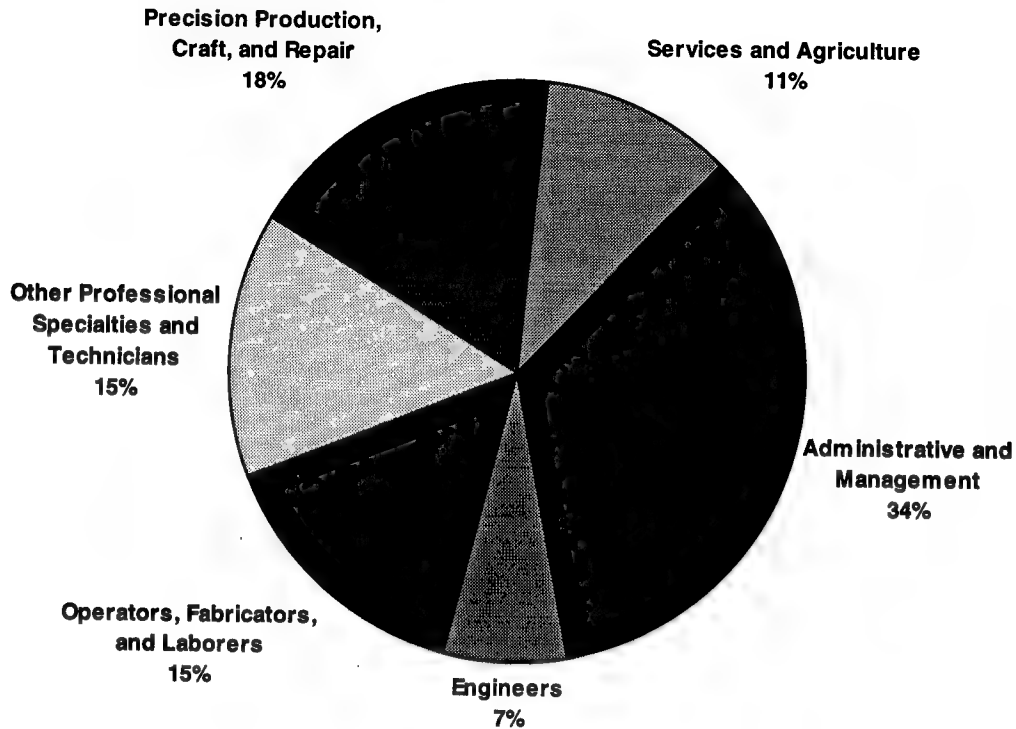
The dispersion within regions is large relative to the dispersion across regions. For example:

- Six of the nine regions contain one or more states in which total projected defense expenditures (direct and indirect) exceed the national average.
- All nine regions contain at least one state in which total projected defense expenditures are less than 60 percent of the national average, and at least one state in which total projected defense expenditures are greater than 60 percent of the national average. At the same time, six regions contain at least one state in which total projected defense expenditures are less than 50 percent of the national average, and seven regions contain at least one state in which total projected defense expenditures are greater than 90 percent of the national average.

The DEPPS projections describe the pattern of defense and defense-related expenditures, assuming that the geographic distribution of the various components of defense activity remains what it has been in recent years. The actual course of completion of defense contracts may produce a future geographic pattern that differs from historical distributions.

Figure 3.
Composition of Civilian Employment for 1998

Defense-Related Employment



Nondefense-Related Employment

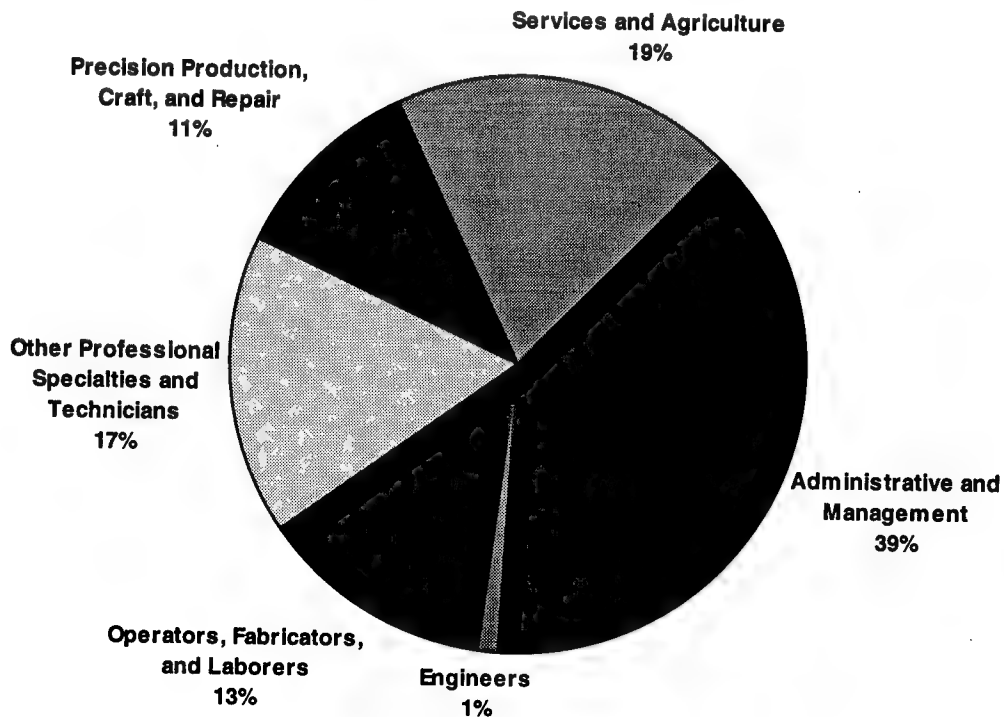


Table 1.
Estimated Defense Expenditures Per Capita, 1998
(By region, in 1998 dollars)

Region	Direct			Indirect	Total
	Pay	Purchases	Total		
New England	294 (163 - 503)	851 (145 - 1336)	1145 (313 - 1827)	807 (562 - 1410)	1952 (945 - 2605)
Mid-Atlantic	175 (102 - 217)	383 (301 - 523)	558 (426 - 729)	554 (462 - 635)	1112 (888 - 1363)
South Atlantic	909 (146 - 2641)	942 (79 - 3388)	1851 (226 - 6029)	975 (461 - 2313)	2826 (686 - 8342)
East North Central	161 (87 - 243)	249 (112 - 408)	410 (198 - 560)	553 (467 - 633)	963 (687 - 1193)
West North Central	354 (91 - 709)	424 (188 - 827)	778 (280 - 1169)	941 (402 - 2784)	1719 (682 - 3734)
East South Central	443 (216 - 559)	540 (228 - 988)	983 (560 - 1515)	642 (535 - 778)	1625 (1096 - 2105)
West South Central	456 (313 - 719)	386 (181 - 552)	842 (493 - 1014)	732 (529 - 865)	1574 (1022 - 1851)
Mountain	494 (299 - 723)	394 (112 - 1063)	888 (412 - 1660)	720 (476 - 853)	1608 (939 - 2474)
Pacific	927 (162 - 1982)	861 (58 - 2247)	1788 (220 - 3619)	895 (492 - 1258)	2683 (711 - 4877)
United States	507 (87 - 2641)	589 (58 - 3388)	1096 (198 - 6029)	790 (402 - 2784)	1886 (682 - 8342)

NOTES: The numbers in parentheses reflect the lower and upper bounds of the estimates for individual states in the regions.

New England: Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont

Mid-Atlantic: New Jersey, New York, Pennsylvania

South Atlantic: Delaware, District of Columbia, Florida, Georgia, Maryland, North Carolina, South Carolina, Virginia, West Virginia

East North Central: Illinois, Indiana, Michigan, Ohio, Wisconsin

West North Central: Iowa, Kansas, Minnesota, Missouri, Nebraska, North Dakota, South Dakota

East South Central: Alabama, Kentucky, Mississippi, Tennessee

West South Central: Arkansas, Louisiana, Oklahoma, Texas

Mountain: Arizona, Colorado, Idaho, Montana, Nevada, New Mexico, Utah, Wyoming

Pacific: Alaska, California, Hawaii, Oregon, Washington

Limitations of the Projections

The projections of defense purchases in Section I show direct and indirect purchases from various industries. They attempt to include all defense purchases, whether or not the purchases are made domestically.

By contrast, the state-level projections include only purchases and pay estimated to be made in the 50 states and the District of Columbia. They exclude expenditures made abroad or in U.S. territories, the pay of military personnel stationed on ships in foreign waters, and expenditures for imported goods. In order to factor out such expenditures, historical data showing the distribution of military personnel are used and an assumption is made about the level of defense imports. Specifically, it is assumed that, for the products of any given industry, imports constitute the same share of defense purchases as they do of civilian purchases. But because the Defense Department is required to channel most of its purchases to domestic firms, and because defense purchases often represent specialized products, the percentage of defense purchases accounted for by imports may be lower than this assumption suggests. To the extent that this is the case, the projections will underestimate the proportion of defense expenditures occurring in the United States.

Comparisons With Previous Estimates

The input-output model used to generate estimates for this report has been rebuilt since the document was last issued. The revisions to the model affect results for specific industries. In particular:

- The input-output model now includes 320 industries and is maintained by Interindustry Forecasting at the University of Maryland (INFORUM), replacing the 429-industry model that was maintained by DRI/McGraw-Hill. Because fewer industries are represented in the model, the definitions of some industries have changed. (The differences are largest in the agriculture and service sectors.)
- The model now reflects the standard industrial classification (SIC) system promulgated by the Office of Management and Budget in 1987, rather than the 1982 SIC system, which underlay previous projections.

Both of these changes affect projections for individual industries. For example, one of the largest industrial sectors in the earlier projections was the Radio and Television Communications Equipment sector, which included electronic sensors used in many defense applications. Because the 1987 industrial classification system contains more detail on electronics sectors, it is now possible to break out purchases of sensors from the remainder of radio and television communications equipment, and to produce projections for this individual industry.

In addition, the industries from which R&D purchases are made can now be better identified. Whereas funding for bench research and basic exploration was formerly allocated to the major weapons-producing sectors (e.g., aircraft, missiles, radio and TV equipment, etc.), it now is allocated to the research laboratory, engineering, and architectural services industries.

Given the significance of these changes, the DEPPS projections should not be compared with estimates generated by the former model, for states or for industries.

SECTION I: SUMMARY TABLES – Industry Expenditures and Employment, Individual States and Entire United States

The summary tables that follow provide an overview of estimated defense expenditures and employment. The first table presents estimates of total defense purchases from the 50 manufacturing industries leading in defense production in 1998. The estimates shown include both direct and indirect purchases. The second table presents estimates of defense-related employment by major occupational category, while the third table provides more detailed estimates of defense-related employment of engineers and scientists.

The remaining five tables present state-level information:

- The first three state-level tables present estimates of *direct* defense expenditures, first in the aggregate and then for selected budget accounts. The first table shows outlays (for purchases and pay) projected to be made in each state during each year of the forecast period. (The estimates assume that state shares of the underlying components of pay and purchases remain at recent levels.) The next two tables break out the statewide estimates by budget category, the first showing outlays arising from the procurement and RDT&E accounts and the second showing outlays resulting from the remaining accounts.
- The last two state-level tables present estimates of *indirect* defense expenditures. The first table shows indirect expenditures arising from purchases made by the Department of Defense; the second identifies estimated expenditures arising from the wages and salaries of DoD personnel and from military retirement pay.

Projected Defense Purchases from Fifty Manufacturing Industries Leading in Defense Production in 1998

Rounded to Millions of 1998 Dollars

Ind #	Supplying Industry	1997	1998	1999	2000	2001	2002	2003
237	Aircraft and Missile Parts and Auxiliary Equipment, n.e.c.	10,663	10,398	10,683	10,852	11,169	11,449	11,861
235	Aircraft	10,684	9,892	10,188	10,540	11,223	11,793	12,289
21	Guided Missiles and Space Vehicles	9,404	8,701	8,536	8,352	8,330	8,376	8,522
220	Radio and TV Broadcasting and Communication Equipment	8,223	7,929	7,866	7,742	7,769	7,852	8,086
110	Petroleum Refining Except Fuel Oil	7,535	7,278	7,147	7,073	6,631	6,300	6,708
238	Ship Building and Repairing	7,364	7,112	7,050	7,349	7,374	7,638	7,752
236	Aircraft and Missile Engines, Propulsion Units, and Parts	6,897	6,678	6,901	6,883	6,903	7,011	7,208
246	Search and Navigation Equipment	3,627	3,456	3,466	3,509	3,549	3,544	3,623
198	Electronic Computers	3,540	3,451	3,393	3,350	3,338	3,276	3,305
222	Semiconductors and Related Devices	3,366	3,431	3,590	3,735	3,917	4,142	4,482
111	Fuel Oil	3,400	3,259	3,183	3,138	2,877	2,653	2,757
22	Ammunition, Except Small Arms	3,347	3,248	3,408	3,526	3,601	3,622	3,667
223	Electronic Components, n.e.c.	3,196	3,105	3,127	3,123	3,155	3,204	3,330
118	Miscellaneous Plastic Products	1,987	1,916	1,935	1,964	1,977	2,031	2,129
133	Steel Mills, Blast Furnaces, and Rolling and Finishing Mills	1,857	1,727	1,698	1,695	1,678	1,682	1,687
95	Industrial Inorganic Chemicals	1,543	1,513	1,544	1,537	1,538	1,591	1,699
249	Surgical and Medical Instruments	1,513	1,434	1,445	1,435	1,335	1,375	1,395
174	Industrial Trucks, Tractors, Trailers and Stackers	1,378	1,329	1,383	1,395	1,382	1,373	1,378
248	Measuring Devices and Environmental Controls	1,262	1,233	1,269	1,277	1,290	1,322	1,383
90	Commercial Printing	1,231	1,188	1,187	1,188	1,174	1,189	1,231
233	Motor Vehicles and Passenger Car Bodies	1,309	1,180	1,169	1,252	1,335	1,373	1,398
151	Fabricated Plate Work (Boiler Shops)	1,032	1,024	1,027	1,019	984	1,000	958
96	Industrial Organic Chemicals	1,061	1,008	1,001	998	981	996	1,032
142	Other Nonferrous Rolling and Drawing, and Nonferrous Wire	1,064	997	1,006	1,018	1,036	1,060	1,096
59	Apparel	1,098	977	950	951	690	816	831
23	Tanks and Tank Components	1,012	901	885	957	1,033	1,067	1,081
234	Motor Vehicle Parts and Accessories	944	888	914	1,001	1,057	1,086	1,104
199	Computer Peripheral Equipment	837	822	814	808	809	797	808
25	Small Arms Ammunition	812	817	863	904	933	955	1,007
210	Motors and Generators	802	746	754	754	749	752	760
141	Aluminum Rolling and Drawing Products	779	727	726	735	750	763	781
177	Special Dies, Jigs, Molds and Cutting Tools	726	659	666	676	690	704	716
102	Plastics Materials and Resins	670	637	638	643	639	652	677
230	Electrical Machinery, Equipment and Supplies, n.e.c.	638	622	620	607	609	619	644
163	Pipe, Valves, and Pipe Fittings	638	615	621	637	636	655	677
86	Newspaper Publishing and Printing	658	606	588	573	552	548	550
197	Industrial and Commercial Machinery, n.e.c.	612	585	594	607	613	630	649
158	Hardware, n.e.c.	629	581	578	591	602	615	627
159	Metal Plating, Polishing, and Coating	583	565	575	587	600	618	646
78	Products from Paper Mills, Including Building Paper	579	553	546	542	528	531	547
164	Fabricated Metal Products, n.e.c.	564	538	544	550	551	550	561
153	Screw Machine Products, Bolts, and Nuts	565	532	539	552	567	583	603
175	Machine Tools, Metal Cutting Types	610	530	531	515	487	435	382
253	Laboratory and Optical Instruments	547	527	530	530	536	541	549
53	Broadwoven Fabric Mills	579	513	505	504	433	457	468
61	Miscellaneous Fabricated Textile Products	530	492	488	493	465	468	488
211	Relays and Industrial Controls	502	485	484	484	489	506	539
145	Nonferrous Castings and Forgings	477	460	475	481	490	502	518
255	Photographic Equipment and Supplies	459	458	463	466	481	522	590
87	Periodical Publishing and Printing	447	432	437	443	443	455	475

Projected Defense and Defense-Related Employment by Occupational Category

Rounded to Thousands of Workers

Occupational Category	1997	1998	1999	2000	2001	2002	2003
Administrative Support (including Clerical)	511	487	475	465	451	452	455
Agriculture, Forestry, Fishing and Related Engineers	22	21	20	20	19	19	19
Management Support	190	182	179	176	174	174	175
Managerial and Administrative	183	176	172	170	167	168	169
Marketing and Sales	147	139	137	135	131	133	135
Operators, Fabricators, and Laborers	107	103	101	100	96	97	99
Other Professional Specialties	418	394	386	381	360	367	370
Precision Production, Craft, and Repair Service	287	277	273	269	266	267	271
Technicians and Related Support	507	480	468	460	450	451	453
	273	262	259	257	245	251	256
	113	108	106	105	103	103	104
Total All Categories:	2,758	2,629	2,576	2,537	2,461	2,480	2,507

Note: numbers may not add due to rounding

Projected Defense and Defense-Related Employment of Engineers and Scientists

Rounded to Thousands of Workers

Occupational Category	1997	1998	1999	2000	2001	2002	2003
Aeronautical and Astronautical Engineers	19	18	18	17	17	17	17
Chemical Engineers	4	4	3	3	3	3	3
Civil Engineers (Including Traffic Engineers)	26	25	24	23	23	23	23
Electrical and Electronics Engineers	69	66	65	63	62	62	62
Industrial Engineers (Except Safety Engineers)	12	12	12	12	12	12	12
Mechanical Engineers	36	34	34	33	32	32	32
Metallurgists and Metallurgical, Ceramic, and Materials Engineers	1	1	1	1	1	1	1
Other Engineers	24	23	23	23	23	23	24
Total Engineers	190	182	179	176	174	174	175
Architects and Surveyors	11	11	10	10	10	10	10
Life Scientists	4	4	4	4	4	4	4
Computer Systems Analysts, Engineers, and Scientists	103	101	99	99	98	99	101
Mathematicians and Other Mathematical Scientists	4	4	4	4	4	4	4
Operations Research Analysts	9	9	9	9	8	8	8
Chemists	6	6	6	6	6	6	6
Geologists, Geophysicists, and Oceanographers	2	2	2	2	2	2	2
Physicists and Astronomers	1	1	1	1	1	1	1
Other Physical Scientists	6	6	6	6	6	6	6
Total Other Professional Specialties	148	143	141	139	139	139	141
Total Engineers and Scientists:	338	326	320	315	313	313	316

Note: numbers may not add due to rounding

Projections of Total Direct Expenditures, by State

Rounded to Millions of 1998 dollars

State	1997	1998	1999	2000	2001	2002	2003
Alabama	5,312	5,108	5,034	4,982	4,818	4,839	4,904
Alaska	2,505	2,446	2,404	2,407	2,271	2,460	2,689
Arizona	4,511	4,370	4,384	4,411	4,449	4,504	4,595
Arkansas	1,286	1,251	1,240	1,238	1,201	1,207	1,218
California	42,599	40,951	40,720	40,703	40,670	40,987	42,126
Colorado	6,696	6,526	6,456	6,290	6,208	6,308	6,566
Connecticut	4,131	3,904	3,920	3,990	4,038	4,144	4,268
Delaware	816	795	795	790	770	775	782
District of Columbia	3,375	3,262	3,204	3,178	3,061	3,042	3,101
Florida	14,766	14,354	14,286	14,228	14,132	14,224	14,473
Georgia	10,418	10,063	9,982	9,839	9,667	9,691	9,838
Hawaii	3,587	3,474	3,418	3,391	3,318	3,303	3,347
Idaho	526	511	504	498	492	485	489
Illinois	4,235	4,068	4,022	3,999	3,886	3,884	3,944
Indiana	2,836	2,720	2,690	2,684	2,648	2,624	2,679
Iowa	852	813	806	795	789	787	803
Kansas	2,172	2,107	2,083	2,060	2,031	2,008	2,036
Kentucky	2,820	2,742	2,706	2,681	2,626	2,609	2,638
Louisiana	4,026	3,887	3,832	3,856	3,772	3,755	3,816
Maine	2,342	2,258	2,238	2,316	2,292	2,359	2,396
Maryland	9,428	9,093	8,980	8,909	8,780	8,805	9,034
Massachusetts	7,933	7,572	7,544	7,493	7,530	7,648	7,886
Michigan	5,136	4,842	4,864	5,004	5,108	5,157	5,235
Minnesota	2,500	2,425	2,446	2,476	2,495	2,507	2,558
Mississippi	4,278	4,117	4,071	4,129	4,051	4,130	4,201
Missouri	6,627	6,286	6,295	6,336	6,444	6,548	6,718
Montana	425	416	412	412	405	403	406
Nebraska	1,151	1,124	1,112	1,104	1,093	1,078	1,089
Nevada	1,136	1,116	1,107	1,102	1,094	1,091	1,093
New Hampshire	784	763	758	749	744	746	762
New Jersey	6,099	5,871	5,796	5,764	5,597	5,768	6,057
New Mexico	2,322	2,251	2,220	2,192	2,157	2,137	2,161
New York	8,089	7,758	7,723	7,680	7,581	7,657	7,858
North Carolina	6,335	6,150	6,080	6,042	5,927	5,930	5,976
North Dakota	703	691	683	682	683	709	753
Ohio	6,676	6,367	6,304	6,287	6,222	6,205	6,338
Oklahoma	3,382	3,279	3,239	3,225	3,179	3,161	3,207
Oregon	747	725	717	712	703	697	700
Pennsylvania	6,642	6,348	6,274	6,183	6,068	5,995	6,118
Rhode Island	1,653	1,595	1,587	1,568	1,544	1,544	1,575
South Carolina	4,023	3,899	3,854	3,845	3,677	3,716	3,750
South Dakota	760	719	754	786	736	646	647
Tennessee	3,160	3,038	2,998	2,983	2,758	2,832	2,856
Texas	20,440	19,742	19,599	19,558	19,278	19,277	19,627
Utah	2,015	1,918	1,875	1,854	1,818	1,799	1,836
Vermont	189	184	184	185	185	186	190
Virginia	24,535	23,743	23,388	23,207	22,487	22,651	23,144
Washington	7,180	6,930	6,840	6,797	6,693	6,668	6,779
West Virginia	431	414	406	403	393	393	395
Wisconsin	1,104	1,051	1,044	1,036	1,007	988	985
Wyoming	343	336	332	332	327	323	327
U.S. Total	266,038	256,373	254,207	253,370	249,897	251,389	256,970

Projections of Total Direct Procurement and RDT&E Expenditures, by State

Rounded to Millions of 1998 dollars

State	1997	1998	1999	2000	2001	2002	2003
Alabama	1,281	1,213	1,199	1,168	1,155	1,161	1,177
Alaska	386	405	400	404	462	591	796
Arizona	1,567	1,484	1,524	1,569	1,636	1,706	1,783
Arkansas	110	103	104	105	107	110	113
California	17,877	16,937	17,050	17,228	17,702	18,374	19,221
Colorado	3,443	3,348	3,315	3,169	3,127	3,250	3,482
Connecticut	2,345	2,212	2,258	2,340	2,437	2,550	2,658
Delaware	287	280	285	282	279	282	285
District of Columbia	241	227	223	216	212	213	216
Florida	4,407	4,195	4,218	4,216	4,286	4,414	4,603
Georgia	3,960	3,785	3,783	3,692	3,664	3,728	3,826
Hawaii	105	98	97	95	94	95	97
Idaho	18	18	17	17	17	18	20
Illinois	621	589	597	605	620	642	671
Indiana	628	592	599	615	635	654	673
Iowa	355	340	338	334	337	344	360
Kansas	142	134	135	138	144	151	160
Kentucky	67	64	64	64	65	69	74
Louisiana	1,129	1,092	1,089	1,143	1,152	1,201	1,230
Maine	1,518	1,465	1,458	1,541	1,553	1,617	1,642
Maryland	2,482	2,366	2,365	2,355	2,389	2,471	2,602
Massachusetts	5,507	5,218	5,223	5,197	5,276	5,422	5,633
Michigan	2,690	2,525	2,585	2,756	2,907	3,003	3,059
Minnesota	1,269	1,229	1,262	1,306	1,340	1,377	1,424
Mississippi	1,683	1,616	1,611	1,697	1,722	1,797	1,839
Missouri	3,780	3,532	3,586	3,654	3,803	3,942	4,082
Montana	7	6	6	6	6	6	6
Nebraska	37	34	34	34	34	35	36
Nevada	36	34	34	33	33	33	33
New Hampshire	254	245	244	239	239	246	258
New Jersey	2,150	2,067	2,067	2,062	2,129	2,271	2,502
New Mexico	409	388	381	368	361	362	367
New York	3,845	3,663	3,693	3,708	3,779	3,889	4,058
North Carolina	404	386	384	374	372	381	399
North Dakota	79	83	82	82	93	118	157
Ohio	2,101	1,967	1,985	2,036	2,114	2,185	2,256
Oklahoma	206	191	193	197	204	210	216
Oregon	72	69	68	67	66	67	67
Pennsylvania	1,934	1,845	1,866	1,874	1,896	1,946	2,010
Rhode Island	769	742	751	750	753	767	789
South Carolina	292	277	281	288	296	305	313
South Dakota	18	17	17	17	17	18	18
Tennessee	428	405	398	384	377	377	380
Texas	5,093	4,803	4,833	4,835	4,936	5,078	5,253
Utah	402	367	358	352	352	357	367
Vermont	60	58	59	61	62	64	66
Virginia	3,533	3,387	3,347	3,323	3,345	3,496	3,720
Washington	1,370	1,277	1,263	1,251	1,265	1,294	1,339
West Virginia	21	20	19	19	19	19	19
Wisconsin	97	93	95	99	101	104	107
Wyoming	5	4	4	4	4	4	4
U.S. Total	81,522	77,495	77,851	78,367	79,975	82,814	86,467

Projections of Total Direct Expenditures Excluding Procurement and RDT&E, by State

Rounded to Millions of 1998 dollars

State	1997	1998	1999	2000	2001	2002	2003
Alabama	4,032	3,894	3,835	3,814	3,663	3,678	3,728
Alaska	2,120	2,041	2,003	2,003	1,809	1,869	1,893
Arizona	2,944	2,886	2,860	2,842	2,813	2,797	2,813
Arkansas	1,176	1,148	1,136	1,133	1,094	1,097	1,105
California	24,722	24,014	23,670	23,475	22,968	22,612	22,905
Colorado	3,252	3,178	3,142	3,121	3,081	3,058	3,084
Connecticut	1,786	1,693	1,661	1,651	1,601	1,594	1,609
Delaware	529	515	510	508	491	493	497
District of Columbia	3,133	3,034	2,981	2,963	2,849	2,829	2,885
Florida	10,359	10,159	10,068	10,012	9,845	9,809	9,870
Georgia	6,458	6,278	6,198	6,147	6,003	5,962	6,013
Hawaii	3,482	3,375	3,321	3,297	3,224	3,208	3,250
Idaho	508	494	487	481	475	468	469
Illinois	3,614	3,479	3,425	3,394	3,265	3,242	3,273
Indiana	2,208	2,127	2,091	2,069	2,013	1,970	2,006
Iowa	497	473	468	460	452	443	443
Kansas	2,030	1,973	1,947	1,922	1,887	1,857	1,876
Kentucky	2,753	2,679	2,642	2,617	2,561	2,541	2,564
Louisiana	2,896	2,795	2,742	2,713	2,620	2,553	2,586
Maine	824	794	780	775	738	742	754
Maryland	6,946	6,727	6,615	6,554	6,391	6,334	6,432
Massachusetts	2,425	2,354	2,320	2,296	2,254	2,226	2,254
Michigan	2,446	2,317	2,279	2,247	2,200	2,154	2,176
Minnesota	1,231	1,196	1,184	1,170	1,154	1,130	1,135
Mississippi	2,595	2,502	2,460	2,432	2,329	2,332	2,362
Missouri	2,847	2,754	2,709	2,682	2,641	2,606	2,636
Montana	418	409	406	405	399	397	400
Nebraska	1,114	1,090	1,078	1,070	1,059	1,043	1,053
Nevada	1,100	1,082	1,074	1,069	1,061	1,058	1,060
New Hampshire	530	518	513	510	505	500	503
New Jersey	3,950	3,803	3,729	3,702	3,468	3,497	3,554
New Mexico	1,913	1,864	1,839	1,825	1,796	1,775	1,794
New York	4,244	4,095	4,030	3,972	3,803	3,769	3,801
North Carolina	5,930	5,764	5,696	5,668	5,555	5,549	5,577
North Dakota	624	608	602	600	590	591	595
Ohio	4,575	4,400	4,319	4,251	4,107	4,019	4,083
Oklahoma	3,176	3,088	3,046	3,029	2,975	2,951	2,991
Oregon	674	656	649	645	636	630	633
Pennsylvania	4,708	4,503	4,407	4,309	4,171	4,050	4,109
Rhode Island	884	853	836	818	791	777	787
South Carolina	3,731	3,622	3,573	3,556	3,381	3,411	3,437
South Dakota	742	702	736	769	719	629	628
Tennessee	2,732	2,633	2,600	2,599	2,381	2,455	2,477
Texas	15,347	14,939	14,766	14,723	14,342	14,199	14,374
Utah	1,613	1,551	1,517	1,502	1,465	1,441	1,469
Vermont	128	126	125	124	123	122	123
Virginia	21,003	20,356	20,041	19,884	19,141	19,156	19,424
Washington	5,810	5,653	5,576	5,546	5,428	5,374	5,440
West Virginia	410	394	387	384	374	374	376
Wisconsin	1,007	959	949	937	906	884	878
Wyoming	339	331	328	328	323	319	322
U.S. Total	184,516	178,878	176,356	175,003	169,922	168,575	170,503

Projections of Indirect Defense Purchases Resulting from Direct Purchases, by State

Rounded to Millions of 1998 dollars

State	1997	1998	1999	2000	2001	2002	2003
Alabama	2,365	2,276	2,280	2,287	2,250	2,297	2,372
Alaska	500	481	476	476	461	463	481
Arizona	2,066	2,004	2,035	2,064	2,069	2,131	2,224
Arkansas	894	856	859	867	851	869	900
California	16,342	15,782	15,842	15,924	15,734	16,095	16,718
Colorado	2,021	1,942	1,943	1,944	1,915	1,950	2,026
Connecticut	4,188	4,023	3,922	3,872	3,838	4,157	4,336
Delaware	328	315	314	317	310	316	328
District of Columbia	691	671	666	665	658	682	705
Florida	4,837	4,689	4,727	4,787	4,748	4,904	5,140
Georgia	3,271	3,151	3,166	3,184	3,129	3,216	3,351
Hawaii	519	501	499	501	492	504	521
Idaho	494	478	486	491	488	497	519
Illinois	4,835	4,621	4,598	4,607	4,499	4,577	4,728
Indiana	2,794	2,670	2,671	2,690	2,659	2,710	2,798
Iowa	798	763	761	767	754	772	800
Kansas	1,369	1,323	1,331	1,343	1,318	1,343	1,395
Kentucky	1,690	1,628	1,629	1,642	1,620	1,645	1,702
Louisiana	2,249	2,169	2,149	2,148	2,047	2,032	2,122
Maine	381	367	368	371	364	372	387
Maryland	3,251	3,138	3,141	3,152	3,111	3,181	3,297
Massachusetts	4,580	4,417	4,443	4,464	4,445	4,599	4,827
Michigan	3,400	3,242	3,247	3,285	3,252	3,322	3,432
Minnesota	2,072	1,993	1,995	2,009	1,977	2,016	2,090
Mississippi	982	941	940	949	933	954	999
Missouri	2,961	2,853	2,862	2,880	2,843	2,912	3,010
Montana	232	222	222	223	216	219	227
Nebraska	625	603	600	603	591	602	624
Nevada	434	420	421	425	418	429	446
New Hampshire	497	478	480	484	482	496	515
New Jersey	3,857	3,697	3,704	3,752	3,724	3,849	4,048
New Mexico	925	905	916	925	912	929	969
New York	6,210	5,962	5,961	6,003	5,909	6,060	6,298
North Carolina	2,852	2,732	2,737	2,766	2,703	2,785	2,891
North Dakota	223	214	213	214	208	210	218
Ohio	5,360	5,121	5,122	5,150	5,084	5,178	5,348
Oklahoma	1,866	1,798	1,791	1,799	1,745	1,758	1,830
Oregon	1,105	1,076	1,094	1,113	1,111	1,147	1,201
Pennsylvania	5,043	4,825	4,817	4,843	4,756	4,847	5,009
Rhode Island	459	442	446	454	455	471	495
South Carolina	1,577	1,506	1,505	1,517	1,486	1,530	1,587
South Dakota	1,974	1,933	2,099	2,201	2,108	1,777	1,820
Tennessee	2,031	1,946	1,950	1,966	1,927	1,979	2,049
Texas	11,637	11,278	11,320	11,404	11,157	11,327	11,841
Utah	1,109	1,069	1,074	1,081	1,070	1,095	1,136
Vermont	264	261	268	275	279	289	305
Virginia	6,785	6,571	6,592	6,647	6,448	6,679	6,916
Washington	3,096	3,033	3,090	3,131	3,121	3,195	3,324
West Virginia	612	585	583	586	576	585	604
Wisconsin	1,928	1,844	1,844	1,857	1,827	1,864	1,925
Wyoming	267	257	255	255	244	243	253
U.S. Total	130,846	126,071	126,452	127,362	125,324	128,058	133,087

Projections of Indirect Defense Purchases Resulting from Direct Pay, by State

Rounded to Millions of 1998 dollars

State	1997	1998	1999	2000	2001	2002	2003
Alabama	1,191	1,150	1,120	1,111	1,098	1,089	1,111
Alaska	382	369	360	357	353	351	358
Arizona	1,229	1,192	1,165	1,160	1,149	1,142	1,167
Arkansas	502	484	470	465	458	453	460
California	7,783	7,531	7,336	7,275	7,194	7,137	7,278
Colorado	1,302	1,259	1,227	1,218	1,202	1,192	1,214
Connecticut	604	583	565	558	551	545	554
Delaware	211	204	199	197	195	194	198
District of Columbia	601	580	564	558	551	546	556
Florida	4,447	4,312	4,212	4,189	4,153	4,131	4,222
Georgia	2,433	2,357	2,302	2,290	2,269	2,256	2,305
Hawaii	1,062	1,026	1,002	996	985	978	998
Idaho	250	242	237	236	234	233	238
Illinois	2,137	2,064	2,003	1,981	1,956	1,938	1,973
Indiana	1,068	1,036	1,012	1,008	1,000	996	1,020
Iowa	421	406	393	388	383	378	384
Kansas	681	658	640	635	627	622	634
Kentucky	1,033	998	973	966	955	949	968
Louisiana	945	913	889	882	872	866	882
Maine	338	328	320	318	316	314	321
Maryland	1,811	1,752	1,708	1,697	1,680	1,670	1,705
Massachusetts	1,088	1,048	1,016	1,003	988	977	992
Michigan	1,330	1,284	1,247	1,233	1,217	1,202	1,220
Minnesota	779	759	742	739	736	735	755
Mississippi	685	660	641	635	627	621	632
Missouri	1,250	1,210	1,178	1,168	1,155	1,147	1,170
Montana	213	205	200	198	195	193	196
Nebraska	457	443	432	428	423	420	429
Nevada	762	742	730	726	720	717	733
New Hampshire	235	227	221	219	216	214	218
New Jersey	1,467	1,415	1,374	1,357	1,340	1,326	1,350
New Mexico	622	601	586	582	576	573	586
New York	2,554	2,454	2,371	2,331	2,289	2,254	2,282
North Carolina	2,349	2,277	2,224	2,213	2,194	2,183	2,233
North Dakota	246	237	231	230	227	226	230
Ohio	2,150	2,076	2,018	1,997	1,971	1,952	1,986
Oklahoma	1,126	1,088	1,060	1,052	1,041	1,033	1,054
Oregon	563	547	532	528	522	518	529
Pennsylvania	2,180	2,108	2,050	2,029	2,006	1,988	2,026
Rhode Island	272	263	257	255	252	251	256
South Carolina	1,221	1,182	1,154	1,147	1,136	1,129	1,153
South Dakota	180	175	170	169	167	165	169
Tennessee	986	956	932	925	916	909	928
Texas	5,178	5,010	4,886	4,853	4,802	4,768	4,868
Utah	564	546	531	527	521	517	528
Vermont	114	110	107	107	106	105	108
Virginia	4,967	4,806	4,689	4,662	4,615	4,587	4,686
Washington	1,991	1,928	1,882	1,870	1,850	1,838	1,876
West Virginia	271	261	254	251	248	245	250
Wisconsin	772	749	731	727	722	718	733
Wyoming	149	145	141	140	138	137	140
U.S. Total	67,154	64,957	63,286	62,784	62,097	61,627	62,863

SECTION II: PROJECTIONS FOR SELECTED INDUSTRIES

The tables presented in this section show projected defense and defense-related purchases from the 50 manufacturing industries projected to lead in defense production in calendar year 1998. A separate table is provided for each industry.

The upper portion of each table provides projections of direct and indirect defense purchases for calendar years 1997 through 2003. The lower portion of the table shows the indirect defense purchases estimated to result from DoD purchases from each of eleven industrial groupings.

The model produces projections for 320 industries; estimates for 50 of these industries are presented in this report. Those industries are grouped into 85 sectors in the state-level tables presented in Section III. Thus, industrial sector 44, "Aerospace," appearing in the state-level tables, includes four industries: industry 235, "Aircraft"; industry 236, "Aircraft and Missile Engines, Propulsion Units, and Parts"; industry 237, "Aircraft and Missile Parts and Auxiliary Equipment, n.e.c."; and industry 21, "Guided Missiles and Space Vehicles." A crosswalk between the industries cited in Section II and the industrial sectors addressed in Section III is provided in the appendix.

**Projected Defense Purchases of
Aircraft and Missile Parts and Auxiliary Equipment, n.e.c.**
Rounded to Millions of 1998 Dollars

237

	1997	1998	1999	2000	2001	2002	2003
SUMMARY OF DEFENSE PURCHASES							
Direct Purchases	7,757	7,576	7,787	7,933	8,201	8,432	8,755
Indirect Purchases	2,905	2,822	2,895	2,918	2,968	3,016	3,105
Total :	10,663	10,398	10,683	10,852	11,169	11,449	11,861

INDIRECT DEFENSE PURCHASES BY PURCHASING SECTOR

Aircraft Engines	364	351	365	364	366	374	387
Aircraft Parts	510	465	456	461	479	493	513
Ammunition	1	1	1	1	1	1	1
Communication Equipment	2	2	2	2	2	2	2
Missiles	1,242	1,187	1,192	1,180	1,180	1,195	1,223
Motor Vehicles	0	0	0	0	0	1	1
Shipbuilding	0	0	0	1	1	1	1
Tanks	0	0	0	0	0	0	0
Other Electronic Equipment	0	0	0	0	0	0	0
Other Ordinances	0	0	0	0	0	0	0
Other	785	817	879	910	938	951	978
Total :	2,905	2,822	2,895	2,918	2,968	3,016	3,105

Note: numbers may not add due to rounding

Projected Defense Purchases of Aircraft

Rounded to Millions of 1998 Dollars

235

1997

1998

1999

2000

2001

2002

2003

SUMMARY OF DEFENSE PURCHASES

Direct Purchases 10,618 9,827 10,121 10,473 11,153 11,723 12,215

Indirect Purchases 66 64 66 67 69 71 73

Total : 10,684 9,892 10,188 10,540 11,223 11,793 12,289

INDIRECT DEFENSE PURCHASES BY PURCHASING SECTOR

Aircraft Engines 2 1 2 2 2 2 2

Aircraft Parts 38 37 38 39 40 41 43

Ammunition 0 0 0 0 0 0 0

Communication Equipment 0 0 0 0 0 0 0

Missiles 5 5 5 5 5 5 5

Motor Vehicles 0 0 0 0 0 0 0

Shipbuilding 0 0 0 0 0 0 0

Tanks 0 0 0 0 0 0 0

Other Electronic Equipment 0 0 0 0 0 0 0

Other Ordnances 0 0 0 0 0 0 0

Other 21 21 21 22 22 23 24

Total : 66 64 66 67 69 71 73

Note: numbers may not add due to rounding

**Projected Defense Purchases of
Guided Missiles and Space Vehicles**
Rounded to Millions of 1998 Dollars

21

	1997	1998	1999	2000	2001	2002	2003
SUMMARY OF DEFENSE PURCHASES							
Direct Purchases	9,122	8,435	8,270	8,092	8,072	8,116	8,258
Indirect Purchases	282	267	265	260	259	260	264
Total :	9,404	8,701	8,536	8,352	8,330	8,376	8,522

INDIRECT DEFENSE PURCHASES BY PURCHASING SECTOR

Aircraft Engines	1	1	1	1	1	1	1
Aircraft Parts	14	14	14	15	15	16	16
Ammunition	0	0	0	0	0	0	0
Communication Equipment	0	0	0	0	0	0	0
Missiles	264	250	248	242	240	241	244
Motor Vehicles	0	0	0	0	0	0	0
Shipbuilding	0	0	0	0	0	0	0
Tanks	0	0	0	0	0	0	0
Other Electronic Equipment	0	0	0	0	0	0	0
Other Ordinances	0	0	0	0	0	0	0
Other	2	2	2	3	3	3	3
Total :	282	267	265	260	259	260	264

Note: numbers may not add due to rounding

**Projected Defense Purchases of
Radio and TV Broadcasting and Communication Equipment**
Rounded to Millions of 1998 Dollars

	1997	1998	1999	2000	2001	2002	2003
SUMMARY OF DEFENSE PURCHASES							
Direct Purchases	7,013	6,794	6,727	6,596	6,591	6,638	6,827
Indirect Purchases	1,210	1,135	1,139	1,146	1,177	1,214	1,258
Total :	8,223	7,929	7,866	7,742	7,769	7,852	8,086

INDIRECT DEFENSE PURCHASES BY PURCHASING SECTOR

Aircraft Engines	0	0	0	0	0	0	0
Aircraft Parts	3	3	3	3	3	3	3
Ammunition	0	0	0	0	0	0	0
Communication Equipment	584	522	509	512	535	561	588
Missiles	518	497	502	499	501	508	522
Motor Vehicles	0	0	0	0	0	0	0
Shipbuilding	13	13	13	14	14	15	15
Tanks	0	0	0	0	0	0	0
Other Electronic Equipment	1	1	1	1	1	1	1
Other Ordinances	0	0	0	0	0	0	0
Other	91	99	110	117	123	124	128
Total :	1,210	1,135	1,139	1,146	1,177	1,214	1,258

Note: numbers may not add due to rounding

**Projected Defense Purchases of
Petroleum Refining Except Fuel Oil**
Rounded to Millions of 1998 Dollars

	1997	1998	1999	2000	2001	2002	2003
SUMMARY OF DEFENSE PURCHASES							
Direct Purchases	3,168	3,083	3,020	2,979	2,838	2,669	2,938
Indirect Purchases	4,366	4,195	4,127	4,094	3,793	3,631	3,770
Total :	7,535	7,278	7,147	7,073	6,631	6,300	6,708

INDIRECT DEFENSE PURCHASES BY PURCHASING SECTOR

Aircraft Engines	37	36	37	37	37	37	38
Aircraft Parts	52	52	53	54	57	58	61
Ammunition	49	48	51	52	54	54	56
Communication Equipment	70	68	68	69	70	71	74
Missiles	28	27	27	27	27	28	28
Motor Vehicles	21	20	20	22	23	24	24
Shipbuilding	60	58	57	59	60	62	62
Tanks	6	5	5	5	6	6	6
Other Electronic Equipment	7	7	7	6	7	7	7
Other Ordinances	2	2	2	2	3	3	3
Other	4,033	3,874	3,800	3,760	3,451	3,281	3,410
Total :	4,366	4,195	4,127	4,094	3,793	3,631	3,770

Note: numbers may not add due to rounding

**Projected Defense Purchases of
Ship Building and Repairing**
Rounded to Millions of 1998 Dollars

	1997	1998	1999	2000	2001	2002	2003
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SUMMARY OF DEFENSE PURCHASES

Direct Purchases	7,321	7,070	7,008	7,307	7,337	7,598	7,711
Indirect Purchases	44	42	42	42	37	40	41
Total :	7,364	7,112	7,050	7,349	7,374	7,638	7,752

INDIRECT DEFENSE PURCHASES BY PURCHASING SECTOR

Aircraft Engines	0	0	0	0	0	0	0
Aircraft Parts	0	0	0	0	0	0	0
Ammunition	0	0	0	0	0	0	0
Communication Equipment	0	0	0	0	0	0	0
Missiles	0	0	0	0	0	0	0
Motor Vehicles	0	0	0	0	0	0	0
Shipbuilding	17	16	16	17	17	17	18
Tanks	0	0	0	0	0	0	0
Other Electronic Equipment	0	0	0	0	0	0	0
Other Ordinances	0	0	0	0	0	0	0
Other	27	26	25	25	20	22	23
Total :	44	42	42	42	37	40	41

Note: numbers may not add due to rounding

**Projected Defense Purchases of
Aircraft and Missile Engines, Propulsion Units, and Parts**
Rounded to Millions of 1998 Dollars

236

	1997	1998	1999	2000	2001	2002	2003
SUMMARY OF DEFENSE PURCHASES							
Direct Purchases	4,115	3,917	4,018	3,957	3,944	3,988	4,088
Indirect Purchases	2,782	2,761	2,883	2,926	2,959	3,023	3,120
Total :	6,897	6,678	6,901	6,883	6,903	7,011	7,208

INDIRECT DEFENSE PURCHASES BY PURCHASING SECTOR

Aircraft Engines	780	743	763	752	751	761	781
Aircraft Parts	73	72	76	79	83	87	91
Ammunition	3	3	3	3	3	4	4
Communication Equipment	7	7	7	7	8	8	9
Missiles	536	515	521	519	522	531	546
Motor Vehicles	2	2	2	2	2	2	2
Shipbuilding	2	2	2	2	2	2	3
Tanks	1	1	1	1	1	1	1
Other Electronic Equipment	0	0	0	0	0	1	1
Other Ordinances	0	0	0	0	0	0	0
Other	1,379	1,416	1,508	1,560	1,585	1,627	1,682
Total :	2,782	2,761	2,883	2,926	2,959	3,023	3,120

Note: numbers may not add due to rounding

**Projected Defense Purchases of
Search and Navigation Equipment**
Rounded to Millions of 1998 Dollars

	1997	1998	1999	2000	2001	2002	2003
SUMMARY OF DEFENSE PURCHASES							
Direct Purchases	3,508	3,337	3,342	3,383	3,421	3,416	3,493
Indirect Purchases	118	118	124	125	128	128	130
Total :	3,627	3,456	3,466	3,509	3,549	3,544	3,623

INDIRECT DEFENSE PURCHASES BY PURCHASING SECTOR

Aircraft Engines	7	7	7	7	7	7	7
Aircraft Parts	1	1	1	1	1	1	1
Ammunition	0	0	0	0	0	0	0
Communication Equipment	6	6	6	6	6	6	6
Missiles	7	7	7	7	7	7	7
Motor Vehicles	0	0	0	0	0	0	0
Shipbuilding	8	7	7	8	8	8	8
Tanks	0	0	0	0	0	0	0
Other Electronic Equipment	0	0	0	0	0	0	0
Other Ordnances	0	0	0	0	0	0	0
Other	89	90	95	97	99	99	101
Total :	118	118	124	125	128	128	130

Note: numbers may not add due to rounding

**Projected Defense Purchases of
Electronic Computers**
Rounded to Millions of 1998 Dollars

198

	1997	1998	1999	2000	2001	2002	2003
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SUMMARY OF DEFENSE PURCHASES

Direct Purchases	2,882	2,811	2,763	2,728	2,718	2,666	2,689
Indirect Purchases	658	640	630	622	620	610	616
Total :	3,540	3,451	3,393	3,350	3,338	3,276	3,305

INDIRECT DEFENSE PURCHASES BY PURCHASING SECTOR

Aircraft Engines	1	1	1	1	1	1	1
Aircraft Parts	2	2	2	2	2	2	2
Ammunition	1	1	1	1	1	1	1
Communication Equipment	97	93	92	92	92	93	95
Missiles	4	4	4	4	4	4	4
Motor Vehicles	0	0	0	0	0	0	0
Shipbuilding	1	1	1	1	1	1	1
Tanks	0	0	0	0	0	0	0
Other Electronic Equipment	1	1	0	0	1	1	1
Other Ordinances	0	0	0	0	0	0	0
Other	552	538	529	521	518	507	511
Total :	658	640	630	622	620	610	616

Note: numbers may not add due to rounding

**Projected Defense Purchases of
Semiconductors and Related Devices**
Rounded to Millions of 1998 Dollars

	1997	1998	1999	2000	2001	2002	2003
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SUMMARY OF DEFENSE PURCHASES

Direct Purchases	34	32	31	31	31	30	30
Indirect Purchases	3,332	3,399	3,559	3,704	3,887	4,112	4,452
Total :	3,366	3,431	3,590	3,735	3,917	4,142	4,482

INDIRECT DEFENSE PURCHASES BY PURCHASING SECTOR

Aircraft Engines	24	24	26	28	29	31	34
Aircraft Parts	173	178	192	206	223	241	261
Ammunition	226	231	255	277	296	312	329
Communication Equipment	1,129	1,142	1,192	1,239	1,304	1,373	1,473
Missiles	142	142	150	157	165	174	187
Motor Vehicles	34	33	35	39	44	47	50
Shipbuilding	26	27	28	31	33	36	38
Tanks	2	1	2	2	2	2	2
Other Electronic Equipment	65	63	65	67	71	76	83
Other Ordnances	12	11	11	12	13	14	15
Other	1,500	1,547	1,603	1,648	1,706	1,806	1,979
Total :	3,332	3,399	3,559	3,704	3,887	4,112	4,452

Note: numbers may not add due to rounding

Projected Defense Purchases of Fuel Oil

Rounded to Millions of 1998 Dollars

111

	1997	1998	1999	2000	2001	2002	2003
SUMMARY OF DEFENSE PURCHASES							
Direct Purchases	2,598	2,499	2,443	2,403	2,239	1,996	2,079
Indirect Purchases	802	760	740	735	638	657	678
Total :	3,400	3,259	3,183	3,138	2,877	2,653	2,757

INDIRECT DEFENSE PURCHASES BY PURCHASING SECTOR

Aircraft Engines	11	11	11	10	10	10	11
Aircraft Parts	13	13	13	13	14	14	14
Ammunition	11	11	11	12	12	12	12
Communication Equipment	17	17	16	16	16	16	17
Missiles	7	7	7	6	6	6	7
Motor Vehicles	6	6	6	6	7	7	7
Shipbuilding	17	16	15	16	16	16	16
Tanks	2	1	1	2	2	2	2
Other Electronic Equipment	2	2	2	2	2	2	2
Other Ordinances	1	1	1	1	1	1	1
Other	715	677	657	651	553	571	591
Total :	802	760	740	735	638	657	678

Note: numbers may not add due to rounding

**Projected Defense Purchases of
Ammunition, Except Small Arms**
Rounded to Millions of 1998 Dollars

22

	1997	1998	1999	2000	2001	2002	2003
SUMMARY OF DEFENSE PURCHASES							
Direct Purchases	3,156	3,062	3,213	3,324	3,395	3,415	3,457
Indirect Purchases	192	186	195	202	206	207	210
Total :	3,347	3,248	3,408	3,526	3,601	3,622	3,667

INDIRECT DEFENSE PURCHASES BY PURCHASING SECTOR

Aircraft Engines	0	0	0	0	0	0	0
Aircraft Parts	0	0	0	0	0	0	0
Ammunition	192	186	195	202	206	207	210
Communication Equipment	0	0	0	0	0	0	0
Missiles	0	0	0	0	0	0	0
Motor Vehicles	0	0	0	0	0	0	0
Shipbuilding	0	0	0	0	0	0	0
Tanks	0	0	0	0	0	0	0
Other Electronic Equipment	0	0	0	0	0	0	0
Other Ordinances	0	0	0	0	0	0	0
Other	0	0	0	0	0	0	0
Total :	192	186	195	202	206	207	210

**Projected Defense Purchases of
Electronic Components, n.e.c.
Rounded to Millions of 1998 Dollars**

223

	1997	1998	1999	2000	2001	2002	2003
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SUMMARY OF DEFENSE PURCHASES

Direct Purchases	505	485	485	471	469	473	493
Indirect Purchases	2,691	2,620	2,643	2,652	2,686	2,731	2,837
Total :	3,196	3,105	3,127	3,123	3,155	3,204	3,330

INDIRECT DEFENSE PURCHASES BY PURCHASING SECTOR

Aircraft Engines	18	17	18	18	18	19	19
Aircraft Parts	189	185	191	197	205	212	222
Ammunition	97	95	100	105	108	110	113
Communication Equipment	1,377	1,331	1,331	1,331	1,347	1,364	1,411
Missiles	310	295	297	294	295	299	306
Motor Vehicles	7	6	7	7	8	8	9
Shipbuilding	10	10	10	10	11	11	11
Tanks	0	0	0	0	0	1	1
Other Electronic Equipment	55	53	53	52	53	54	58
Other Ordnances	1	1	1	1	1	1	1
Other	627	626	634	636	640	652	685
Total :	2,691	2,620	2,643	2,652	2,686	2,731	2,837

Note: numbers may not add due to rounding

**Projected Defense Purchases of
Miscellaneous Plastic Products**
Rounded to Millions of 1998 Dollars

	1997	1998	1999	2000	2001	2002	2003
SUMMARY OF DEFENSE PURCHASES							
Direct Purchases	43	40	40	39	39	41	47
Indirect Purchases	1,944	1,875	1,895	1,925	1,938	1,990	2,081
Total :	1,987	1,916	1,935	1,964	1,977	2,031	2,129

INDIRECT DEFENSE PURCHASES BY PURCHASING SECTOR

Aircraft Engines	29	29	30	30	30	31	32
Aircraft Parts	59	58	60	62	66	68	72
Ammunition	54	54	58	61	63	65	67
Communication Equipment	186	182	184	187	192	197	207
Missiles	88	84	85	85	86	87	90
Motor Vehicles	71	66	67	74	80	83	85
Shipbuilding	37	36	36	39	39	41	42
Tanks	8	7	7	7	8	8	9
Other Electronic Equipment	68	66	67	65	66	67	72
Other Ordnances	2	1	2	2	2	2	2
Other	1,343	1,292	1,300	1,313	1,306	1,339	1,404
Total :	1,944	1,875	1,895	1,925	1,938	1,990	2,081

Note: numbers may not add due to rounding

**Projected Defense Purchases of
Steel Mills, Blast Furnaces, and Rolling and Finishing Mills**
Rounded to Millions of 1998 Dollars

133

	1997	1998	1999	2000	2001	2002	2003
SUMMARY OF DEFENSE PURCHASES							
Direct Purchases	19	18	18	17	17	16	16
Indirect Purchases	1,838	1,709	1,680	1,678	1,661	1,666	1,670
Total :	1,857	1,727	1,698	1,695	1,678	1,682	1,687

INDIRECT DEFENSE PURCHASES BY PURCHASING SECTOR

Aircraft Engines	54	51	51	49	48	47	48
Aircraft Parts	74	70	70	70	71	72	73
Ammunition	131	125	128	129	130	128	128
Communication Equipment	127	119	116	114	113	112	113
Missiles	25	24	23	23	22	22	22
Motor Vehicles	85	76	76	82	86	87	87
Shipbuilding	443	418	405	413	408	415	413
Tanks	24	21	20	22	22	23	23
Other Electronic Equipment	6	6	6	5	5	5	6
Other Ordnances	11	9	10	10	11	12	12
Other	857	790	775	761	744	743	746
Total :	1,838	1,709	1,680	1,678	1,661	1,666	1,670

Note: numbers may not add due to rounding

**Projected Defense Purchases of
Industrial Inorganic Chemicals**
Rounded to Millions of 1998 Dollars

	1997	1998	1999	2000	2001	2002	2003
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SUMMARY OF DEFENSE PURCHASES

Direct Purchases	971	960	987	985	991	1,033	1,110
Indirect Purchases	572	554	557	553	547	558	589
Total :	1,543	1,513	1,544	1,537	1,538	1,591	1,699

INDIRECT DEFENSE PURCHASES BY PURCHASING SECTOR

Aircraft Engines	4	4	4	4	4	4	4
Aircraft Parts	7	6	6	7	7	7	7
Ammunition	6	6	6	6	6	6	6
Communication Equipment	14	14	13	13	13	14	14
Missiles	4	4	4	4	4	4	4
Motor Vehicles	6	5	5	5	6	6	6
Shipbuilding	16	15	14	15	14	15	15
Tanks	1	1	1	1	1	1	1
Other Electronic Equipment	2	2	2	2	2	2	2
Other Ordnances	0	0	0	0	0	0	0
Other	512	497	500	496	490	501	531
Total :	572	554	557	553	547	558	589

Note: numbers may not add due to rounding

**Projected Defense Purchases of
Surgical and Medical Instruments**
Rounded to Millions of 1998 Dollars

249

	1997	1998	1999	2000	2001	2002	2003
SUMMARY OF DEFENSE PURCHASES							
Direct Purchases	1,490	1,412	1,423	1,414	1,314	1,356	1,375
Indirect Purchases	23	22	22	22	21	20	20
Total :	1,513	1,434	1,445	1,435	1,335	1,375	1,395

INDIRECT DEFENSE PURCHASES BY PURCHASING SECTOR

Aircraft Engines	0	0	0	0	0	0	0
Aircraft Parts	0	0	0	0	0	0	0
Ammunition	0	0	0	0	0	0	0
Communication Equipment	0	0	0	0	0	0	0
Missiles	0	0	0	0	0	0	0
Motor Vehicles	0	0	0	0	0	0	0
Shipbuilding	0	0	0	0	0	0	0
Tanks	0	0	0	0	0	0	0
Other Electronic Equipment	0	0	0	0	0	0	0
Other Ordinances	0	0	0	0	0	0	0
Other	23	22	22	22	20	19	20
Total :	23	22	22	22	21	20	20

Note: numbers may not add due to rounding

**Projected Defense Purchases of
Industrial Trucks, Tractors, Trailers and Stackers**
Rounded to Millions of 1998 Dollars

174

	1997	1998	1999	2000	2001	2002	2003
SUMMARY OF DEFENSE PURCHASES							
Direct Purchases	1,273	1,228	1,278	1,290	1,277	1,269	1,273
Indirect Purchases	105	101	105	106	105	105	105
Total :	1,378	1,329	1,383	1,395	1,382	1,373	1,378

INDIRECT DEFENSE PURCHASES BY PURCHASING SECTOR

Aircraft Engines	0	0	0	0	0	0	0
Aircraft Parts	1	1	1	1	1	1	1
Ammunition	0	0	1	1	1	1	1
Communication Equipment	1	1	1	1	1	1	1
Missiles	0	0	0	0	0	0	0
Motor Vehicles	0	0	0	0	0	0	0
Shipbuilding	1	1	1	1	1	1	1
Tanks	0	0	0	0	0	0	0
Other Electronic Equipment	0	0	0	0	0	0	0
Other Ordnances	0	0	0	0	0	0	0
Other	101	97	101	102	101	100	101
Total :	105	101	105	106	105	105	105

**Projected Defense Purchases of
Measuring Devices and Environmental Controls**
Rounded to Millions of 1998 Dollars

	1997	1998	1999	2000	2001	2002	2003
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SUMMARY OF DEFENSE PURCHASES

Direct Purchases	917	888	909	910	917	946	997
Indirect Purchases	346	346	360	367	374	376	386
Total :	1,262	1,233	1,269	1,277	1,290	1,322	1,383

INDIRECT DEFENSE PURCHASES BY PURCHASING SECTOR

Aircraft Engines	10	10	10	10	10	10	10
Aircraft Parts	3	3	3	3	3	3	4
Ammunition	2	2	2	2	2	2	2
Communication Equipment	5	5	5	5	5	5	5
Missiles	2	2	2	2	2	2	2
Motor Vehicles	14	13	13	14	15	15	15
Shipbuilding	8	7	7	8	8	8	8
Tanks	0	0	0	0	0	0	0
Other Electronic Equipment	0	0	0	0	0	0	0
Other Ordinances	0	0	0	0	0	0	0
Other	301	303	317	322	328	330	338
Total :	346	346	360	367	374	376	386

Note: numbers may not add due to rounding

**Projected Defense Purchases of
Commercial Printing**
Rounded to Millions of 1998 Dollars

90

	1997	1998	1999	2000	2001	2002	2003
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SUMMARY OF DEFENSE PURCHASES

Direct Purchases	62	62	60	58	57	53	54
Indirect Purchases	1,169	1,126	1,127	1,130	1,117	1,136	1,178
Total :	1,231	1,188	1,187	1,188	1,174	1,189	1,231

INDIRECT DEFENSE PURCHASES BY PURCHASING SECTOR

Aircraft Engines	35	34	35	34	34	35	36
Aircraft Parts	44	43	44	45	47	48	50
Ammunition	43	42	44	46	47	47	48
Communication Equipment	83	80	80	80	80	81	84
Missiles	36	35	35	34	34	35	35
Motor Vehicles	15	14	14	16	17	17	18
Shipbuilding	26	25	25	26	26	27	28
Tanks	3	3	3	3	3	4	4
Other Electronic Equipment	3	3	3	3	3	3	3
Other Ordinances	2	2	2	2	2	2	2
Other	878	847	843	841	823	837	870
Total :	1,169	1,126	1,127	1,130	1,117	1,136	1,178

Note: numbers may not add due to rounding

**Projected Defense Purchases of
Motor Vehicles and Passenger Car Bodies**
Rounded to Millions of 1998 Dollars

233

	1997	1998	1999	2000	2001	2002	2003
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SUMMARY OF DEFENSE PURCHASES

Direct Purchases	1,279	1,153	1,141	1,222	1,303	1,340	1,363
Indirect Purchases	30	27	27	30	32	34	35
Total :	1,309	1,180	1,169	1,252	1,335	1,373	1,398

INDIRECT DEFENSE PURCHASES BY PURCHASING SECTOR

Aircraft Engines	0	0	0	0	0	0	0
Aircraft Parts	0	0	0	0	0	0	0
Ammunition	0	0	0	0	0	0	0
Communication Equipment	0	0	0	0	0	0	0
Missiles	0	0	0	0	0	0	0
Motor Vehicles	19	17	17	18	20	20	21
Shipbuilding	0	0	0	0	0	0	0
Tanks	0	0	0	0	0	0	0
Other Electronic Equipment	0	0	0	0	0	0	0
Other Ordnances	0	0	0	0	0	0	0
Other	11	10	10	12	13	13	14
Total :	30	27	27	30	32	34	35

Note: numbers may not add due to rounding

**Projected Defense Purchases of
Fabricated Plate Work (Boiler Shops)**
Rounded to Millions of 1998 Dollars

151

	1997	1998	1999	2000	2001	2002	2003
SUMMARY OF DEFENSE PURCHASES							
Direct Purchases	847	850	853	844	811	828	789
Indirect Purchases	185	174	174	175	173	172	169
Total :	1,032	1,024	1,027	1,019	984	1,000	958

INDIRECT DEFENSE PURCHASES BY PURCHASING SECTOR

Aircraft Engines	1	1	1	1	1	1	1
Aircraft Parts	1	1	1	1	1	1	1
Ammunition	1	1	1	1	1	1	1
Communication Equipment	1	1	1	1	1	1	1
Missiles	1	1	1	1	1	1	1
Motor Vehicles	0	0	0	0	0	0	0
Shipbuilding	37	36	36	38	38	40	41
Tanks	0	0	0	0	0	0	0
Other Electronic Equipment	0	0	0	0	0	0	0
Other Ordnances	0	0	0	0	0	0	0
Other	142	133	133	132	129	126	122
Total :	185	174	174	175	173	172	169

Note: numbers may not add due to rounding

**Projected Defense Purchases of
Industrial Organic Chemicals**
Rounded to Millions of 1998 Dollars

	1997	1998	1999	2000	2001	2002	2003
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SUMMARY OF DEFENSE PURCHASES

Direct Purchases	4	4	4	4	4	4	4
Indirect Purchases	1,057	1,004	997	994	978	992	1,029
Total :	1,061	1,008	1,001	998	981	996	1,032

INDIRECT DEFENSE PURCHASES BY PURCHASING SECTOR

Aircraft Engines	20	19	20	19	19	19	20
Aircraft Parts	39	38	39	40	41	42	43
Ammunition	24	24	25	26	27	27	28
Communication Equipment	64	62	63	64	65	66	69
Missiles	22	21	21	21	21	22	22
Motor Vehicles	23	21	21	23	24	25	25
Shipbuilding	33	31	30	31	31	32	32
Tanks	5	4	4	5	5	5	5
Other Electronic Equipment	13	13	13	12	13	13	14
Other Ordinances	1	1	1	1	1	1	1
Other	810	768	759	752	731	740	769
Total :	1,057	1,004	997	994	978	992	1,029

Note: numbers may not add due to rounding

**Projected Defense Purchases of
Other Nonferrous Rolling and Drawing, and Nonferrous Wire**
Rounded to Millions of 1998 Dollars

	1997	1998	1999	2000	2001	2002	2003
SUMMARY OF DEFENSE PURCHASES							
Direct Purchases	151	128	126	124	122	118	117
Indirect Purchases	913	869	880	894	914	942	979
Total :	1,064	997	1,006	1,018	1,036	1,060	1,096

INDIRECT DEFENSE PURCHASES BY PURCHASING SECTOR

Aircraft Engines	166	158	162	160	160	162	166
Aircraft Parts	66	64	66	67	70	72	75
Ammunition	13	13	14	15	15	15	16
Communication Equipment	82	79	79	80	82	83	87
Missiles	31	30	31	31	31	32	33
Motor Vehicles	4	4	4	4	4	5	5
Shipbuilding	32	31	30	32	32	33	33
Tanks	31	28	28	30	32	33	34
Other Electronic Equipment	10	10	10	9	10	10	11
Other Ordnances	1	1	1	1	1	1	1
Other	477	451	456	466	479	497	519
Total :	913	869	880	894	914	942	979

Note: numbers may not add due to rounding

Projected Defense Purchases of

Apparel

Rounded to Millions of 1998 Dollars

59

	1997	1998	1999	2000	2001	2002	2003
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SUMMARY OF DEFENSE PURCHASES

Direct Purchases	913	808	784	786	558	668	680
Indirect Purchases	186	169	165	165	132	148	151
Total :	1,098	977	950	951	690	816	831

INDIRECT DEFENSE PURCHASES BY PURCHASING SECTOR

Aircraft Engines	1	1	1	1	1	1	1
Aircraft Parts	2	2	2	2	2	2	2
Ammunition	11	11	11	12	12	12	12
Communication Equipment	5	5	5	5	5	5	5
Missiles	1	1	1	1	1	1	1
Motor Vehicles	1	1	1	1	1	1	1
Shipbuilding	1	1	1	1	1	1	1
Tanks	0	0	0	0	0	0	0
Other Electronic Equipment	0	0	0	0	0	0	0
Other Ordinances	0	0	0	0	0	0	0
Other	162	147	143	142	109	124	127
Total :	186	169	165	165	132	148	151

Note: numbers may not add due to rounding

**Projected Defense Purchases of
Tanks and Tank Components**
Rounded to Millions of 1998 Dollars

23

	1997	1998	1999	2000	2001	2002	2003
SUMMARY OF DEFENSE PURCHASES							
Direct Purchases	1,006	896	879	952	1,027	1,061	1,074
Indirect Purchases	6	6	5	6	6	7	7
Total :	1,012	901	885	957	1,033	1,067	1,081

INDIRECT DEFENSE PURCHASES BY PURCHASING SECTOR

Aircraft Engines	0	0	0	0	0	0	0
Aircraft Parts	0	0	0	0	0	0	0
Ammunition	0	0	0	0	0	0	0
Communication Equipment	0	0	0	0	0	0	0
Missiles	0	0	0	0	0	0	0
Motor Vehicles	0	0	0	0	0	0	0
Shipbuilding	0	0	0	0	0	0	0
Tanks	6	6	5	6	6	7	7
Other Electronic Equipment	0	0	0	0	0	0	0
Other Ordnances	0	0	0	0	0	0	0
Other	0	0	0	0	0	0	0
Total :	6	6	5	6	6	7	7

Note: numbers may not add due to rounding

**Projected Defense Purchases of
Motor Vehicle Parts and Accessories**
Rounded to Millions of 1998 Dollars

234

	1997	1998	1999	2000	2001	2002	2003
SUMMARY OF DEFENSE PURCHASES							
Direct Purchases	352	343	372	431	472	485	491
Indirect Purchases	591	545	542	570	585	601	613
Total :	944	888	914	1,001	1,057	1,086	1,104

INDIRECT DEFENSE PURCHASES BY PURCHASING SECTOR

Aircraft Engines	3	3	3	3	3	3	3
Aircraft Parts	4	4	4	4	4	4	4
Ammunition	4	4	4	4	4	4	5
Communication Equipment	7	7	7	7	7	7	7
Missiles	3	3	3	3	3	3	3
Motor Vehicles	438	396	394	424	452	464	470
Shipbuilding	6	6	6	6	6	7	7
Tanks	1	0	0	1	1	1	1
Other Electronic Equipment	1	1	1	1	1	1	1
Other Ordnances	0	0	0	0	0	0	0
Other	124	121	120	117	104	107	112
Total :	591	545	542	570	585	601	613

**Projected Defense Purchases of
Computer Peripheral Equipment**
Rounded to Millions of 1998 Dollars

	1997	1998	1999	2000	2001	2002	2003
SUMMARY OF DEFENSE PURCHASES							
Direct Purchases	341	339	338	339	342	336	341
Indirect Purchases	496	483	475	469	467	461	467
Total :	837	822	814	808	809	797	808
INDIRECT DEFENSE PURCHASES BY PURCHASING SECTOR							
Aircraft Engines	4	4	4	4	4	4	4
Aircraft Parts	5	5	5	5	5	5	6
Ammunition	1	1	1	1	1	1	1
Communication Equipment	6	6	6	6	6	6	6
Missiles	2	2	2	2	2	2	2
Motor Vehicles	0	0	0	0	0	0	0
Shipbuilding	1	1	1	1	1	1	1
Tanks	0	0	0	0	0	0	0
Other Electronic Equipment	0	0	0	0	0	0	0
Other Ordnances	0	0	0	0	0	0	0
Other	476	464	456	450	448	441	446
Total :	496	483	475	469	467	461	467

Note: numbers may not add due to rounding

**Projected Defense Purchases of
Small Arms Ammunition**
Rounded to Millions of 1998 Dollars

25

	1997	1998	1999	2000	2001	2002	2003
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SUMMARY OF DEFENSE PURCHASES

Direct Purchases	808	813	859	900	929	951	1,002
Indirect Purchases	4	4	4	4	4	4	4
Total :	812	817	863	904	933	955	1,007

INDIRECT DEFENSE PURCHASES BY PURCHASING SECTOR

Aircraft Engines	0	0	0	0	0	0	0
Aircraft Parts	0	0	0	0	0	0	0
Ammunition	2	2	3	3	3	3	3
Communication Equipment	0	0	0	0	0	0	0
Missiles	0	0	0	0	0	0	0
Motor Vehicles	0	0	0	0	0	0	0
Shipbuilding	0	0	0	0	0	0	0
Tanks	0	0	0	0	0	0	0
Other Electronic Equipment	0	0	0	0	0	0	0
Other Ordinances	0	0	0	0	0	0	0
Other	1	1	1	1	1	1	1
Total :	4	4	4	4	4	4	4

Note: numbers may not add due to rounding

**Projected Defense Purchases of
Motors and Generators**
Rounded to Millions of 1998 Dollars

210

	1997	1998	1999	2000	2001	2002	2003
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SUMMARY OF DEFENSE PURCHASES

Direct Purchases	503	464	474	472	467	470	475
Indirect Purchases	298	281	281	283	281	282	285
Total :	802	746	754	754	749	752	760

INDIRECT DEFENSE PURCHASES BY PURCHASING SECTOR

Aircraft Engines	1	1	1	1	1	1	1
Aircraft Parts	6	6	6	6	6	6	6
Ammunition	1	1	1	1	1	1	1
Communication Equipment	37	35	34	34	34	34	35
Missiles	4	4	4	3	3	3	4
Motor Vehicles	4	3	3	4	4	4	4
Shipbuilding	29	28	27	28	28	29	29
Tanks	1	1	1	1	1	1	1
Other Electronic Equipment	0	0	0	0	0	0	0
Other Ordinances	0	0	0	0	0	0	0
Total :	217	204	203	204	202	202	203
	298	281	281	283	281	282	285

Note: numbers may not add due to rounding

**Projected Defense Purchases of
Aluminum Rolling and Drawing Products**
Rounded to Millions of 1998 Dollars

141

	1997	1998	1999	2000	2001	2002	2003
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SUMMARY OF DEFENSE PURCHASES

Direct Purchases	9	9	9	9	9	8	8
Indirect Purchases	770	718	717	726	741	755	773
Total :	779	727	726	735	750	763	781

INDIRECT DEFENSE PURCHASES BY PURCHASING SECTOR

Aircraft Engines	21	19	20	19	19	19	20
Aircraft Parts	102	98	100	100	103	104	107
Ammunition	51	49	51	52	53	53	53
Communication Equipment	46	44	43	43	42	42	43
Missiles	21	20	20	19	19	19	20
Motor Vehicles	13	12	12	13	14	14	14
Shipbuilding	57	54	53	55	55	56	56
Tanks	29	26	25	27	28	29	29
Other Electronic Equipment	4	4	4	3	3	3	4
Other Ordnances	1	1	1	1	1	1	1
Other	425	390	388	393	404	413	425
Total :	770	718	717	726	741	755	773

Note: numbers may not add due to rounding

**Projected Defense Purchases of
Special Dies, Jigs, Molds and Cutting Tools**
Rounded to Millions of 1998 Dollars

177

	1997	1998	1999	2000	2001	2002	2003
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SUMMARY OF DEFENSE PURCHASES

Direct Purchases	135	112	111	107	102	91	81
Indirect Purchases	591	547	555	568	589	613	636
Total :	726	659	666	676	690	704	716

INDIRECT DEFENSE PURCHASES BY PURCHASING SECTOR

Aircraft Engines	39	37	38	38	37	38	39
Aircraft Parts	19	19	19	19	20	21	21
Ammunition	27	26	27	28	29	29	30
Communication Equipment	23	22	22	22	22	23	23
Missiles	19	18	18	18	18	18	19
Motor Vehicles	19	17	17	19	20	21	21
Shipbuilding	17	17	16	17	17	18	18
Tanks	3	2	2	3	3	3	3
Other Electronic Equipment	2	2	2	2	2	2	2
Other Ordinances	1	1	1	1	1	1	1
Other	421	386	391	402	419	440	458
Total :	591	547	555	568	589	613	636

Note: numbers may not add due to rounding

**Projected Defense Purchases of
Plastics Materials and Resins**
Rounded to Millions of 1998 Dollars

102

	1997	1998	1999	2000	2001	2002	2003
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SUMMARY OF DEFENSE PURCHASES

Direct Purchases	5	5	5	5	5	5	5
Indirect Purchases	665	633	634	638	635	648	672
Total :	670	637	638	643	639	652	677

INDIRECT DEFENSE PURCHASES BY PURCHASING SECTOR

Aircraft Engines	16	15	15	15	15	15	16
Aircraft Parts	46	45	46	46	48	49	51
Ammunition	20	20	21	22	22	23	23
Communication Equipment	52	50	50	51	52	53	55
Missiles	27	25	25	25	25	26	26
Motor Vehicles	23	21	21	23	25	26	26
Shipbuilding	18	17	17	18	18	18	18
Tanks	5	4	4	5	5	5	5
Other Electronic Equipment	16	16	16	15	15	16	16
Other Ordinances	1	0	1	1	1	1	1
Other	443	419	417	417	409	417	435
Total :	665	633	634	638	635	648	672

Note: numbers may not add due to rounding

**Projected Defense Purchases of
Electrical Machinery, Equipment and Supplies, n.e.c.**
Rounded to Millions of 1998 Dollars

	1997	1998	1999	2000	2001	2002	2003
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SUMMARY OF DEFENSE PURCHASES

Direct Purchases	623	607	606	592	595	604	628
Indirect Purchases	15	14	14	15	15	15	15
Total :	638	622	620	607	609	619	644

INDIRECT DEFENSE PURCHASES BY PURCHASING SECTOR

Aircraft Engines	0	0	0	0	0	0	0
Aircraft Parts	0	0	0	0	0	0	0
Ammunition	0	0	0	0	0	0	0
Communication Equipment	6	6	6	6	6	6	6
Missiles	0	0	0	0	0	0	0
Motor Vehicles	0	0	0	0	0	0	0
Shipbuilding	0	0	0	0	0	0	0
Tanks	0	0	0	0	0	0	0
Other Electronic Equipment	0	0	0	0	0	0	0
Other Ordnances	0	0	0	0	0	0	0
Other	8	8	8	8	8	8	8
Total :	15	14	14	15	15	15	15

**Projected Defense Purchases of
Pipe, Valves and Pipe Fittings**
Rounded to Millions of 1998 Dollars

163

	1997	1998	1999	2000	2001	2002	2003
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SUMMARY OF DEFENSE PURCHASES

Direct Purchases	87	85	84	83	82	77	78
Indirect Purchases	551	530	537	555	555	578	598
Total :	638	615	621	637	636	655	677

INDIRECT DEFENSE PURCHASES BY PURCHASING SECTOR

Aircraft Engines	4	4	4	4	4	4	4
Aircraft Parts	16	16	17	17	18	19	20
Ammunition	3	3	4	4	4	4	4
Communication Equipment	6	6	6	6	6	7	7
Missiles	5	4	4	4	5	5	5
Motor Vehicles	3	3	3	4	4	4	4
Shipbuilding	162	158	158	167	169	177	181
Tanks	1	0	0	1	1	1	1
Other Electronic Equipment	1	1	1	1	1	1	1
Other Ordinances	0	0	0	0	0	0	0
Other	350	334	339	347	343	358	372
Total :	551	530	537	555	555	578	598

**Projected Defense Purchases of
Newspaper Publishing and Printing**
Rounded to Millions of 1998 Dollars

	1997	1998	1999	2000	2001	2002	2003
SUMMARY OF DEFENSE PURCHASES							
Direct Purchases	1	1	1	1	1	1	1
Indirect Purchases	657	605	587	573	552	547	550
Total :	658	606	588	573	552	548	550

INDIRECT DEFENSE PURCHASES BY PURCHASING SECTOR

Aircraft Engines	26	24	24	22	22	21	21
Aircraft Parts	30	29	28	28	28	28	28
Ammunition	31	30	30	30	30	29	29
Communication Equipment	57	53	51	49	48	47	47
Missiles	26	24	23	22	21	21	20
Motor Vehicles	10	9	9	9	9	9	9
Shipbuilding	14	13	13	13	12	12	12
Tanks	2	2	2	2	2	2	2
Other Electronic Equipment	2	1	1	1	1	1	1
Other Ordnances	1	1	1	1	1	1	1
Other	457	420	406	395	377	375	379
Total :	657	605	587	573	552	547	550

Note: numbers may not add due to rounding

**Projected Defense Purchases of
Industrial and Commercial Machinery, n.e.c.**
Rounded to Millions of 1998 Dollars

	1997	1998	1999	2000	2001	2002	2003
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SUMMARY OF DEFENSE PURCHASES

Direct Purchases	47	46	46	46	46	46	46
Indirect Purchases	565	539	548	561	567	584	603
Total :	612	585	594	607	613	630	649

INDIRECT DEFENSE PURCHASES BY PURCHASING SECTOR

Aircraft Engines	31	30	31	30	30	31	32
Aircraft Parts	51	50	52	53	55	57	60
Ammunition	48	47	50	52	53	54	55
Communication Equipment	36	35	35	35	36	37	38
Missiles	23	22	22	22	22	22	23
Motor Vehicles	26	24	25	28	30	31	32
Shipbuilding	31	31	30	32	32	33	34
Tanks	3	3	3	3	3	3	4
Other Electronic Equipment	3	3	3	3	3	3	3
Other Ordnances	2	1	2	2	2	2	2
Total :	312	294	297	301	299	310	320
	565	539	548	561	567	584	603

Note: numbers may not add due to rounding

**Projected Defense Purchases of
Hardware, n.e.c.**
Rounded to Millions of 1998 Dollars

158

	1997	1998	1999	2000	2001	2002	2003
SUMMARY OF DEFENSE PURCHASES							
Direct Purchases	393	358	352	361	372	378	383
Indirect Purchases	235	224	226	229	230	237	244
Total :	629	581	578	591	602	615	627

INDIRECT DEFENSE PURCHASES BY PURCHASING SECTOR

Aircraft Engines	3	3	3	3	3	3	3
Aircraft Parts	65	63	65	66	68	70	72
Ammunition	3	3	3	3	3	3	3
Communication Equipment	2	2	2	2	2	2	2
Missiles	9	9	9	9	9	9	9
Motor Vehicles	9	8	8	9	10	10	10
Shipbuilding	12	12	12	12	12	13	13
Tanks	0	0	0	0	0	0	0
Other Electronic Equipment	0	0	0	0	0	0	0
Other Ordnances	0	0	0	0	0	0	0
Other	130	122	123	124	122	126	130
Total :	235	224	226	229	230	237	244

Note: numbers may not add due to rounding

**Projected Defense Purchases of
Metal Plating, Polishing and Coating**
Rounded to Millions of 1998 Dollars

	1997	1998	1999	2000	2001	2002	2003
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SUMMARY OF DEFENSE PURCHASES

Direct Purchases	2	2	2	2	1	1	1
Indirect Purchases	582	563	574	585	599	616	644
Total :	583	565	575	587	600	618	646

INDIRECT DEFENSE PURCHASES BY PURCHASING SECTOR

Aircraft Engines	43	41	43	42	42	43	44
Aircraft Parts	51	50	51	53	55	57	59
Ammunition	41	40	43	45	46	47	48
Communication Equipment	132	128	130	131	134	137	143
Missiles	31	30	30	30	31	32	33
Motor Vehicles	13	12	12	14	15	15	15
Shipbuilding	13	12	12	13	13	13	13
Tanks	2	1	1	2	2	2	2
Other Electronic Equipment	30	29	29	28	28	29	30
Other Ordinances	3	3	3	3	4	4	4
Other	224	216	220	225	229	238	251
Total :	582	563	574	585	599	616	644

Note: numbers may not add due to rounding

**Projected Defense Purchases of
Products from Paper Mills, Including Building Paper**
Rounded to Millions of 1998 Dollars

78

	1997	1998	1999	2000	2001	2002	2003
SUMMARY OF DEFENSE PURCHASES							
Direct Purchases	7	7	6	6	6	5	6
Indirect Purchases	572	546	540	536	522	526	541
Total :	579	553	546	542	528	531	547

INDIRECT DEFENSE PURCHASES BY PURCHASING SECTOR

Aircraft Engines	16	15	16	15	15	15	15
Aircraft Parts	20	20	20	20	21	21	22
Ammunition	20	19	20	20	21	21	21
Communication Equipment	39	37	37	36	36	36	37
Missiles	17	16	16	16	16	16	16
Motor Vehicles	7	6	6	7	7	8	8
Shipbuilding	13	13	12	13	13	13	13
Tanks	2	1	1	1	2	2	2
Other Electronic Equipment	2	2	2	1	1	2	2
Other Ordinances	1	1	1	1	1	1	1
Other	435	416	409	404	389	392	405
Total :	572	546	540	536	522	526	541

Note: numbers may not add due to rounding

**Projected Defense Purchases of
Fabricated Metal Products, n.e.c.**
Rounded to Millions of 1998 Dollars

	1997	1998	1999	2000	2001	2002	2003
SUMMARY OF DEFENSE PURCHASES							
Direct Purchases	128	121	120	119	117	110	109
Indirect Purchases	436	417	424	431	434	440	452
Total :	564	538	544	550	551	550	561

INDIRECT DEFENSE PURCHASES BY PURCHASING SECTOR

Aircraft Engines	5	5	5	5	5	5	5
Aircraft Parts	10	10	10	10	10	11	11
Ammunition	202	195	204	211	215	215	218
Communication Equipment	37	35	35	34	35	35	35
Missiles	5	4	4	4	4	4	5
Motor Vehicles	4	3	3	4	4	4	4
Shipbuilding	19	18	18	18	18	19	19
Tanks	10	9	9	10	10	11	11
Other Electronic Equipment	1	1	1	1	1	1	1
Other Ordnances	9	8	9	10	11	12	12
Other	135	127	125	124	120	123	130
Total :	436	417	424	431	434	440	452

Note: numbers may not add due to rounding

**Projected Defense Purchases of
Screw Machine Products, Bolts and Nuts**
Rounded to Millions of 1998 Dollars

153

	1997	1998	1999	2000	2001	2002	2003
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SUMMARY OF DEFENSE PURCHASES

Direct Purchases	20	19	19	19	18	17	17
Indirect Purchases	545	513	520	533	549	566	586
Total :	565	532	539	552	567	583	603

INDIRECT DEFENSE PURCHASES BY PURCHASING SECTOR

Aircraft Engines	13	12	12	12	12	12	13
Aircraft Parts	61	59	61	62	64	66	68
Ammunition	49	47	50	51	53	53	54
Communication Equipment	53	51	51	50	51	51	53
Missiles	14	13	13	13	13	13	14
Motor Vehicles	21	19	19	21	23	23	24
Shipbuilding	34	33	32	34	34	35	36
Tanks	6	5	5	6	6	6	7
Other Electronic Equipment	4	4	4	4	4	4	4
Other Ordnances	3	2	2	3	3	3	3
Other	289	267	270	277	287	299	311
Total :	545	513	520	533	549	566	586

Note: numbers may not add due to rounding

**Projected Defense Purchases of
Machine Tools, Metal Cutting Types**
Rounded to Millions of 1998 Dollars

	1997	1998	1999	2000	2001	2002	2003
SUMMARY OF DEFENSE PURCHASES							
Direct Purchases	537	462	462	445	417	365	314
Indirect Purchases	73	67	69	70	70	69	69
Total :	610	530	531	515	487	435	382

INDIRECT DEFENSE PURCHASES BY PURCHASING SECTOR

Aircraft Engines	6	6	6	6	7	7	7
Aircraft Parts	8	8	8	8	8	9	9
Ammunition	5	5	5	5	6	6	6
Communication Equipment	1	1	1	1	1	1	1
Missiles	2	2	2	2	2	2	2
Motor Vehicles	1	1	1	1	1	1	1
Shipbuilding	3	3	3	4	4	4	4
Tanks	1	1	1	1	1	1	1
Other Electronic Equipment	0	0	0	0	0	0	0
Other Ordnances	0	0	0	0	0	0	0
Other	46	41	42	42	41	39	38
Total :	73	67	69	70	70	69	69

Note: numbers may not add due to rounding

**Projected Defense Purchases of
Laboratory and Optical Instruments**
Rounded to Millions of 1998 Dollars

253

	1997	1998	1999	2000	2001	2002	2003
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SUMMARY OF DEFENSE PURCHASES

Direct Purchases	274	267	268	271	275	276	277
Indirect Purchases	272	260	262	260	261	265	272
Total :	547	527	530	530	536	541	549

INDIRECT DEFENSE PURCHASES BY PURCHASING SECTOR

Aircraft Engines	5	5	5	5	5	5	6
Aircraft Parts	55	53	55	56	58	59	62
Ammunition	4	4	4	4	4	4	4
Communication Equipment	10	10	10	10	10	10	10
Missiles	192	181	180	176	175	176	179
Motor Vehicles	0	0	0	0	0	0	0
Shipbuilding	0	0	0	0	0	0	0
Tanks	0	0	0	0	0	0	0
Other Electronic Equipment	0	0	0	0	0	0	0
Other Ordinances	0	0	0	0	0	0	0
Other	6	6	7	8	8	9	10
Total :	272	260	262	260	261	265	272

Note: numbers may not add due to rounding

**Projected Defense Purchases of
Broadwoven Fabric Mills**
Rounded to Millions of 1998 Dollars

	1997	1998	1999	2000	2001	2002	2003
SUMMARY OF DEFENSE PURCHASES							
Direct Purchases	82	65	64	62	58	52	52
Indirect Purchases	497	448	441	443	375	404	415
Total :	579	513	505	504	433	457	468

INDIRECT DEFENSE PURCHASES BY PURCHASING SECTOR

Aircraft Engines	9	9	9	9	9	9	9
Aircraft Parts	3	3	3	3	3	3	3
Ammunition	4	4	4	4	4	4	4
Communication Equipment	6	6	6	6	6	6	6
Missiles	4	4	4	4	4	4	4
Motor Vehicles	12	11	11	12	13	13	14
Shipbuilding	6	5	6	6	6	6	6
Tanks	1	0	0	1	1	1	1
Other Electronic Equipment	1	1	1	1	1	1	1
Other Ordinances	0	0	0	0	0	0	0
Other	453	405	398	398	329	357	367
Total :	497	448	441	443	375	404	415

Note: numbers may not add due to rounding

**Projected Defense Purchases of
Miscellaneous Fabricated Textile Products**
Rounded to Millions of 1998 Dollars

	1997	1998	1999	2000	2001	2002	2003
SUMMARY OF DEFENSE PURCHASES							
Direct Purchases	332	309	303	300	276	267	279
Indirect Purchases	198	184	185	193	189	201	209
Total :	530	492	488	493	465	468	488

INDIRECT DEFENSE PURCHASES BY PURCHASING SECTOR

Aircraft Engines	1	1	1	1	1	1	1
Aircraft Parts	1	1	1	1	1	1	1
Ammunition	1	1	1	1	1	1	1
Communication Equipment	1	1	1	1	1	1	1
Missiles	1	1	1	1	1	1	1
Motor Vehicles	44	40	40	44	47	49	50
Shipbuilding	20	20	20	21	22	23	23
Tanks	0	0	0	0	0	0	0
Other Electronic Equipment	0	0	0	0	0	0	0
Other Ordinances	0	0	0	0	0	0	0
Other	129	120	120	123	115	125	130
Total :	198	184	185	193	189	201	209

**Projected Defense Purchases of
Relays and Industrial Controls**
Rounded to Millions of 1998 Dollars

211

2003

2002

2001

2000

1999

1998

1997

SUMMARY OF DEFENSE PURCHASES

Direct Purchases	41	44	44	44	51	65	90
Indirect Purchases	461	441	440	439	439	441	449
Total :	502	485	484	484	489	506	539

INDIRECT DEFENSE PURCHASES BY PURCHASING SECTOR

Aircraft Engines	2	2	2	2	2	2	2
Aircraft Parts	2	2	2	2	2	3	3
Ammunition	4	4	4	5	5	5	5
Communication Equipment	102	98	98	98	99	100	103
Missiles	7	6	7	7	7	7	7
Motor Vehicles	3	3	3	3	3	4	4
Shipbuilding	40	39	39	40	41	42	43
Tanks	0	0	0	0	0	0	0
Other Electronic Equipment	0	0	0	0	0	0	1
Other Ordnances	0	0	0	0	0	0	0
Total :	299	285	284	281	279	278	282
	461	441	440	439	439	441	449

Note: Numbers may not add due to rounding

**Projected Defense Purchases of
Nonferrous Castings and Forgings**
Rounded to Millions of 1998 Dollars

	1997	1998	1999	2000	2001	2002	2003
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SUMMARY OF DEFENSE PURCHASES

Direct Purchases	2	2	2	2	2	2	2
Indirect Purchases	476	458	473	479	488	500	517
Total :	477	460	475	481	490	502	518

INDIRECT DEFENSE PURCHASES BY PURCHASING SECTOR

Aircraft Engines	231	221	228	226	226	230	237
Aircraft Parts	39	38	40	41	42	44	46
Ammunition	45	44	46	48	49	49	50
Communication Equipment	13	12	12	12	12	13	13
Missiles	44	43	43	43	43	44	46
Motor Vehicles	1	1	1	2	2	2	2
Shipbuilding	6	6	6	6	6	7	7
Tanks	9	8	8	8	9	9	10
Other Electronic Equipment	1	1	1	1	1	1	1
Other Ordinances	2	2	2	2	2	2	2
Other	84	82	86	90	95	99	103
Total :	476	458	473	479	488	500	517

Note: numbers may not add due to rounding

**Projected Defense Purchases of
Photographic Equipment and Supplies**
Rounded to Millions of 1998 Dollars

	1997	1998	1999	2000	2001	2002	2003
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SUMMARY OF DEFENSE PURCHASES

Direct Purchases	225	230	234	235	249	285	344
Indirect Purchases	234	228	230	232	231	237	246
Total :	459	458	463	466	481	522	590

INDIRECT DEFENSE PURCHASES BY PURCHASING SECTOR

Aircraft Engines	5	5	5	5	5	5	5
Aircraft Parts	8	8	8	8	8	9	9
Ammunition	18	18	19	19	20	20	21
Communication Equipment	13	13	13	13	13	14	14
Missiles	7	7	7	7	7	7	8
Motor Vehicles	2	2	2	2	2	2	2
Shipbuilding	4	4	4	5	5	5	5
Tanks	1	0	0	1	1	1	1
Other Electronic Equipment	1	1	1	1	1	1	1
Other Ordnances	0	0	0	0	0	0	0
Other	175	170	170	171	169	173	180
Total :	234	228	230	232	231	237	246

Note: numbers may not add due to rounding

**Projected Defense Purchases of
Periodical Publishing and Printing**
Rounded to Millions of 1998 Dollars

	1997	1998	1999	2000	2001	2002	2003
SUMMARY OF DEFENSE PURCHASES							
Direct Purchases	5	5	5	5	5	5	5
Indirect Purchases	443	427	432	439	438	451	470
Total :	447	432	437	443	443	455	475
INDIRECT DEFENSE PURCHASES BY PURCHASING SECTOR							
Aircraft Engines	17	16	16	16	16	17	17
Aircraft Parts	20	19	20	20	21	22	23
Ammunition	20	20	21	22	23	23	24
Communication Equipment	38	37	37	37	38	38	40
Missiles	18	17	17	17	17	17	18
Motor Vehicles	6	6	6	7	7	7	8
Shipbuilding	10	10	10	10	10	11	11
Tanks	1	1	1	1	1	1	2
Other Electronic Equipment	1	1	1	1	1	1	1
Other Ordnances	1	1	1	1	1	1	1
Other	311	299	302	305	301	311	326
Total :	443	427	432	439	438	451	470

SECTION III: INDIVIDUAL STATE PROJECTIONS

The tables in this section give state-level estimates of defense and defense-related expenditures in calendar years 1997 through 2003. A separate table presents estimates for each of the 50 states and the District of Columbia; an additional table is provided for the United States as a whole. Each table is divided into two parts, the first providing a general overview of projected spending trends over the forecast period, and the second presenting estimates for the industrial sectors projected to lead in defense or defense-related sales statewide.

The first section of each table presents estimates of direct defense purchases and pay, and of indirect defense purchases for each year of the projection period. (For purposes of comparison, projections of nondefense expenditures and of total output — total economic activity — also are provided.)³

The second section provides estimates of the dollar value of direct and indirect purchases from the five industrial sectors projected to lead in defense sales in the state, and the five projected to lead in indirect sales stemming from DoD purchases, over the forecast period.

The industrial sectors represented in the tables are aggregates of the industries covered in Section II. Industrial projections are made for 320 industries. For purposes of the state-level reports, these are grouped into 85 industrial sectors. Thus, industrial sector 44, "Aerospace," used in the state tables, includes four industries: industry 235, "Aircraft"; industry 236, "Aircraft and missile engines, propulsion units, and parts"; industry 237, "Aircraft and missile parts and auxiliary equipment, n.e.c."; and industry 21, "Guided missiles and space vehicles."

³

Total nondefense expenditures represent the difference between total output and total (direct plus indirect) defense purchases and pay. Note that total output is different from (and larger than) gross domestic product (GDP). The calculation of GDP nets out intermediate goods; that is, it does not include the value of intermediate products, products used to make (or included in) goods for final sale. Total output includes these intermediate products.

Alabama Summary

Rounded to Millions of 1999 dollars

	1997	1998	1999	2000	2001	2002	2003
AGGREGATE MEASURES							
Total Direct Expenditures (Purchases and Pay)	5,312	5,108	5,034	4,982	4,818	4,839	4,904
Indirect Defense Purchases Resulting from Direct Purchases	2,365	2,276	2,280	2,287	2,250	2,297	2,372
Indirect Defense Purchases Resulting from Direct Pay	1,191	1,150	1,120	1,111	1,098	1,089	1,111
Total Nondefense Expenditures	212,062	214,720	218,874	224,241	228,020	231,965	236,154
Total Output	220,933	223,256	227,311	232,624	236,188	240,194	244,543
Government Compensation: Pay, Military + Civilian	2,525	2,464	2,434	2,418	2,392	2,371	2,402

LARGEST PURCHASES BY INDUSTRIAL SECTORS

Total Direct Expenditures (Purchases and Pay)							
Research Labs, Computer and Engineering Services	1,006	966	947	912	894	887	893
Aerospace	446	424	427	427	434	439	453
Air Transportation	234	223	220	224	179	202	205
Apparel and Household Textiles	213	190	185	185	137	158	161
Construction	172	157	148	144	142	144	142
Indirect Defense Purchases Resulting from Direct Purchases							
Research Labs, Computer and Engineering Services	726	705	707	703	689	701	719
Wholesale Trade	109	105	106	107	105	107	110
Other Nonferrous Metals	94	89	91	92	94	96	99
Ferrous Metals	94	88	88	89	89	89	90
Aerospace	78	76	79	81	82	84	87

Alaska Summary

Rounded to Millions of 1999 dollars

	1997	1998	1999	2000	2001	2002	2003
AGGREGATE MEASURES							
Total Direct Expenditures (Purchases and Pay)	2,505	2,446	2,404	2,407	2,271	2,460	2,689
Indirect Defense Purchases Resulting from Direct Purchases	500	481	476	476	461	463	481
Indirect Defense Purchases Resulting from Direct Pay	382	369	360	357	353	351	358
Total Nondefense Expenditures	33,594	34,281	34,678	35,171	35,591	35,835	36,016
Total Output	36,982	37,578	37,917	38,411	38,676	39,108	39,544
Government Compensation: Pay, Military + Civilian	949	927	919	914	909	904	912

LARGEST PURCHASES BY INDUSTRIAL SECTORS

Total Direct Expenditures (Purchases and Pay)							
Communications Services	465	484	477	482	536	657	862
Trucking and Highway Passenger Transit	268	254	249	256	170	213	218
Railroads	257	244	238	245	161	202	207
Construction	178	167	160	157	156	157	157
Research Labs, Computer and Engineering Services	133	126	122	121	121	122	124
Indirect Defense Purchases Resulting from Direct Purchases							
Research Labs, Computer and Engineering Services	96	92	91	93	94	96	100
Crude Petroleum	93	90	87	85	79	75	79
Electric Utilities	36	34	35	35	35	36	37
Gas Utilities	36	34	34	34	33	34	34
Air Transportation	30	29	29	29	28	28	29

Arizona Summary
Rounded to Millions of 1999 dollars

	1997	1998	1999	2000	2001	2002	2003
AGGREGATE MEASURES							
Total Direct Expenditures (Purchases and Pay)	4,511	4,370	4,384	4,411	4,449	4,504	4,595
Indirect Defense Purchases Resulting from Direct Purchases	2,066	2,004	2,035	2,064	2,069	2,131	2,224
Indirect Defense Purchases Resulting from Direct Pay	1,229	1,192	1,165	1,160	1,149	1,142	1,167
Total Nondefense Expenditures	197,302	200,626	205,124	210,763	215,114	219,626	224,374
Total Output	205,109	208,193	212,709	218,400	222,782	227,404	232,362
Government Compensation: Pay, Military + Civilian	2,036	2,009	1,997	1,992	1,982	1,974	1,982

LARGEST PURCHASES BY INDUSTRIAL SECTORS

Total Direct Expenditures (Purchases and Pay)							
Aerospace	940	878	899	925	971	1,008	1,046
Research Labs, Computer and Engineering Services	461	446	439	429	428	427	435
Metal Products	327	319	336	352	363	372	382
Construction	139	130	124	122	122	123	122
Other Chemicals	130	128	132	133	134	141	151
Indirect Defense Purchases Resulting from Direct Purchases							
Communications Equipment and Electronic Components	416	410	429	448	468	495	529
Research Labs, Computer and Engineering Services	333	325	327	330	330	338	350
Aerospace	289	282	290	290	291	294	300
Wholesale Trade	94	90	90	91	90	92	96
Finance and Insurance	83	81	81	82	79	82	85

Arkansas Summary

Rounded to Millions of 1999 dollars

1997 1998 1999 2000 2001 2002 2003

AGGREGATE MEASURES

Total Direct Expenditures (Purchases and Pay)	1,286	1,251	1,240	1,238	1,201	1,207	1,218
Indirect Defense Purchases Resulting from Direct Purchases	894	856	859	867	851	869	900
Indirect Defense Purchases Resulting from Direct Pay	502	484	470	465	458	453	460
Total Nondefense Expenditures	119,168	120,500	123,029	126,495	128,723	131,145	133,690
Total Output	121,852	123,092	125,599	129,066	131,234	133,676	136,270
Government Compensation: Pay, Military + Civilian	803	793	789	787	783	779	782

LARGEST PURCHASES BY INDUSTRIAL SECTORS

Total Direct Expenditures (Purchases and Pay)

Aerospace	100	94	95	96	98	101	104
Construction	75	71	68	67	67	67	67
Air Transportation	69	65	65	66	52	59	60
Food and Tobacco	47	45	44	43	41	36	37
Shoes and Leather	34	31	30	30	21	25	26

Indirect Defense Purchases Resulting from Direct Purchases

Wholesale Trade	62	60	60	61	60	62	64
Other Nonferrous Metals	59	56	57	57	58	59	61
Metal Products	56	54	55	56	57	59	61
Trucking and Highway Passenger Transit	44	43	43	44	40	43	45
Ferrous Metals	41	39	40	41	42	43	44

California Summary

Rounded to Millions of 1999 dollars

	1997	1998	1999	2000	2001	2002	2003
AGGREGATE MEASURES							
Total Direct Expenditures (Purchases and Pay)	42,599	40,951	40,720	40,703	40,670	40,987	42,126
Indirect Defense Purchases Resulting from Direct Purchases	16,342	15,782	15,842	15,924	15,734	16,095	16,718
Indirect Defense Purchases Resulting from Direct Pay	7,783	7,531	7,336	7,275	7,194	7,137	7,278
Total Nondefense Expenditures	1,495,279	1,520,875	1,551,138	1,587,766	1,616,929	1,646,827	1,677,681
Total Output	1,561,987	1,585,122	1,615,020	1,651,651	1,680,508	1,711,026	1,743,783
Government Compensation: Pay, Military + Civilian	13,954	13,633	13,484	13,407	13,283	13,185	13,330

LARGEST PURCHASES BY INDUSTRIAL SECTORS

Total Direct Expenditures (Purchases and Pay)

Aerospace	8,609	8,075	8,229	8,369	8,695	8,987	9,299
Research Labs, Computer and Engineering Services	6,650	6,379	6,260	6,090	6,043	6,049	6,158
Communications Equipment and Electronic Components	1,940	1,874	1,853	1,840	1,867	1,894	1,974
Instruments	1,084	1,041	1,050	1,071	1,094	1,108	1,155
Ships and Boats	1,072	1,036	1,028	1,077	1,083	1,124	1,140

Indirect Defense Purchases Resulting from Direct Purchases

Research Labs, Computer and Engineering Services	4,801	4,654	4,675	4,691	4,660	4,780	4,956
Communications Equipment and Electronic Components	1,418	1,405	1,449	1,483	1,535	1,600	1,700
Aerospace	1,261	1,204	1,224	1,218	1,222	1,236	1,267
Wholesale Trade	867	834	839	851	845	866	900
Petroleum Refining Excluding Fuel Oil	642	615	604	599	554	527	543

Colorado Summary

Rounded to Millions of 1999 dollars

	1997	1998	1999	2000	2001	2002	2003
AGGREGATE MEASURES							
Total Direct Expenditures (Purchases and Pay)	6,696	6,526	6,456	6,290	6,208	6,308	6,566
Indirect Defense Purchases Resulting from Direct Purchases	2,021	1,942	1,943	1,944	1,915	1,950	2,026
Indirect Defense Purchases Resulting from Direct Pay	1,302	1,259	1,227	1,218	1,202	1,192	1,214
Total Nondefense Expenditures	215,602	219,342	223,848	229,351	233,362	237,729	242,373
Total Output	225,619	229,069	233,473	238,802	242,686	247,177	252,177
Government Compensation: Pay, Military + Civilian	2,391	2,348	2,329	2,320	2,304	2,291	2,308

LARGEST PURCHASES BY INDUSTRIAL SECTORS

Total Direct Expenditures (Purchases and Pay)							
Aerospace	2,416	2,332	2,309	2,184	2,103	2,105	2,142
Research Labs, Computer and Engineering Services	669	643	633	617	614	615	628
Communications Services	312	330	325	328	375	479	649
Communications Equipment and Electronic Components	271	264	262	249	241	241	246
Construction	166	155	149	146	146	147	147
Indirect Defense Purchases Resulting from Direct Purchases							
Research Labs, Computer and Engineering Services	483	469	472	475	473	486	505
Communications Equipment and Electronic Components	135	131	131	131	133	135	142
Communications Services	110	109	111	113	115	121	132
Wholesale Trade	111	106	107	108	107	109	112
Aerospace	114	105	104	99	95	94	95

Connecticut Summary

Rounded to Millions of 1999 dollars

	1997	1998	1999	2000	2001	2002	2003
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AGGREGATE MEASURES

Total Direct Expenditures (Purchases and Pay)	4,131	3,904	3,920	3,990	4,038	4,144	4,268
Indirect Defense Purchases Resulting from Direct Purchases	4,188	4,023	3,922	3,872	3,838	4,157	4,336
Indirect Defense Purchases Resulting from Direct Pay	604	583	565	558	551	545	554
Total Nondefense Expenditures	168,225	170,567	173,663	177,473	180,434	183,067	186,028
Total Output	177,144	179,071	182,065	185,888	188,855	191,909	195,181
Government Compensation: Pay, Military + Civilian	688	673	666	662	656	652	658

LARGEST PURCHASES BY INDUSTRIAL SECTORS

Total Direct Expenditures (Purchases and Pay)

Aerospace	1,023	944	978	1,033	1,112	1,169	1,218
Ships and Boats	544	521	518	531	528	547	557
Research Labs, Computer and Engineering Services	477	454	449	445	452	464	485
Real Estate	484	433	420	423	393	407	413
Other Chemicals	183	180	186	187	189	198	213

Indirect Defense Purchases Resulting from Direct Purchases

Real Estate	2,365	2,267	2,150	2,084	2,057	2,331	2,439
Aerospace	362	358	375	382	386	391	400
Research Labs, Computer and Engineering Services	344	331	335	342	349	367	391
Finance and Insurance	121	117	118	119	115	118	122
Communications Equipment and Electronic Components	108	105	105	106	109	114	120

Delaware Summary

Rounded to Millions of 1999 dollars

	1997	1998	1999	2000	2001	2002	2003
AGGREGATE MEASURES							
Total Direct Expenditures (Purchases and Pay)	816	795	795	790	770	775	782
Indirect Defense Purchases Resulting from Direct Purchases	328	315	314	317	310	316	328
Indirect Defense Purchases Resulting from Direct Pay	211	204	199	197	195	194	198
Total Nondefense Expenditures	48,511	48,970	49,966	51,516	52,589	53,646	54,698
Total Output	49,866	50,283	51,274	52,821	53,864	54,931	56,006
Government Compensation: Pay, Military + Civilian	359	353	351	350	348	346	348

LARGEST PURCHASES BY INDUSTRIAL SECTORS

Total Direct Expenditures (Purchases and Pay)							
Medical Instruments and Supplies	288	281	286	283	280	281	285
Trucking and Highway Passenger Transit	31	29	28	29	19	24	25
Construction	25	24	23	23	23	23	23
Research Labs, Computer and Engineering Services	15	15	14	14	13	13	13
Education and Nonprofit Organizations	10	10	10	10	10	10	10
Indirect Defense Purchases Resulting from Direct Purchases							
Other Chemicals	89	85	85	85	84	86	89
Finance and Insurance	33	31	31	31	29	30	31
Petroleum Refining Excluding Fuel Oil	28	27	27	27	26	25	27
Wholesale Trade	21	21	21	21	21	21	22
Electric Utilities	14	13	13	14	13	14	14

District of Columbia Summary
Rounded to Millions of 1999 dollars

	1997	1998	1999	2000	2001	2002	2003
AGGREGATE MEASURES							
Total Direct Expenditures (Purchases and Pay)	3,375	3,262	3,204	3,178	3,061	3,042	3,101
Indirect Defense Purchases Resulting from Direct Purchases	691	671	666	665	658	682	705
Indirect Defense Purchases Resulting from Direct Pay	601	580	564	558	551	546	556
Total Nondefense Expenditures	66,944	67,990	68,968	70,204	71,132	72,132	73,169
Total Output	71,611	72,503	73,401	74,606	75,401	76,402	77,532
Government Compensation: Pay, Military + Civilian	1,485	1,429	1,401	1,386	1,364	1,347	1,377

LARGEST PURCHASES BY INDUSTRIAL SECTORS

Total Direct Expenditures (Purchases and Pay)							
Communications Services	608	592	585	590	583	554	571
Research Labs, Computer and Engineering Services	490	475	466	455	451	448	453
Water Transportation	364	355	347	345	275	309	311
Construction	99	95	93	91	91	91	92
Computers	50	49	49	49	49	48	49
Indirect Defense Purchases Resulting from Direct Purchases							
Research Labs, Computer and Engineering Services	353	346	348	350	348	354	364
Real Estate	120	115	109	105	104	118	123
Communications Services	35	34	34	34	34	35	38
Printing and Publishing	26	25	25	24	24	24	25
Electric Utilities	22	22	22	22	22	23	24

Florida Summary

Rounded to Millions of 1999 dollars

	1997	1998	1999	2000	2001	2002	2003
AGGREGATE MEASURES							
Total Direct Expenditures (Purchases and Pay)	14,766	14,354	14,286	14,228	14,132	14,224	14,473
Indirect Defense Purchases Resulting from Direct Purchases	4,837	4,689	4,727	4,787	4,748	4,904	5,140
Indirect Defense Purchases Resulting from Direct Pay	4,447	4,312	4,212	4,189	4,153	4,131	4,222
Total Nondefense Expenditures	629,238	641,086	655,128	672,517	686,521	701,662	716,962
Total Output	653,303	664,456	678,366	695,736	709,569	724,939	740,815
Government Compensation: Pay, Military + Civilian	7,315	7,218	7,179	7,159	7,122	7,090	7,120

LARGEST PURCHASES BY INDUSTRIAL SECTORS

Total Direct Expenditures (Purchases and Pay)

Aerospace	1,982	1,874	1,895	1,900	1,943	1,985	2,047
Research Labs, Computer and Engineering Services	1,663	1,596	1,576	1,552	1,564	1,586	1,641
Communications Equipment and Electronic Components	808	786	780	753	740	741	758
Metal Products	394	381	395	409	418	427	436
Construction	400	374	358	351	350	353	352

Indirect Defense Purchases Resulting from Direct Purchases

Research Labs, Computer and Engineering Services	1,201	1,165	1,177	1,195	1,206	1,253	1,321
Communications Equipment and Electronic Components	377	370	375	380	394	411	439
Wholesale Trade	371	359	364	371	370	381	398
Finance and Insurance	277	268	270	274	267	277	290
Communications Services	242	237	239	242	243	254	275

Georgia Summary

Rounded to Millions of 1999 dollars

	1997	1998	1999	2000	2001	2002	2003
AGGREGATE MEASURES							
Total Direct Expenditures (Purchases and Pay)	10,418	10,063	9,982	9,839	9,667	9,691	9,838
Indirect Defense Purchases Resulting from Direct Purchases	3,271	3,151	3,166	3,184	3,129	3,216	3,351
Indirect Defense Purchases Resulting from Direct Pay	2,433	2,357	2,302	2,290	2,269	2,256	2,305
Total Nondefense Expenditures	397,097	404,626	414,285	426,701	436,107	445,967	456,312
Total Output	413,215	420,193	429,731	442,010	451,168	461,126	471,801
Government Compensation: Pay, Military + Civilian	4,826	4,719	4,671	4,647	4,609	4,580	4,624
LARGEST PURCHASES BY INDUSTRIAL SECTORS							
Total Direct Expenditures (Purchases and Pay)							
Aerospace	3,523	3,369	3,367	3,263	3,227	3,267	3,344
Research Labs, Computer and Engineering Services	446	431	425	418	421	423	434
Construction	223	208	199	195	194	196	195
Ships and Boats	182	176	175	184	185	192	195
Trucking and Highway Passenger Transit	130	124	121	124	83	103	106
Indirect Defense Purchases Resulting from Direct Purchases							
Aerospace	354	346	352	341	339	342	350
Research Labs, Computer and Engineering Services	322	315	317	322	325	334	349
Wholesale Trade	270	261	264	269	267	274	285
Communications Services	213	216	224	234	241	258	287
Textiles (Except Knitting)	202	183	181	183	160	171	177

Hawaii Summary

Rounded to Millions of 1999 dollars

2003

2002

2001

2000

1999

1998

1997

AGGREGATE MEASURES

Total Direct Expenditures (Purchases and Pay)	3,347	3,303	3,318	3,391	3,418	3,474	3,587
Indirect Defense Purchases Resulting from Direct Purchases	521	504	492	501	499	501	519
Indirect Defense Purchases Resulting from Direct Pay	998	978	985	996	1,002	1,026	1,062
Total Nondefense Expenditures	91,098	89,608	88,281	86,992	85,340	83,743	82,161
Total Output	95,964	94,393	93,077	91,881	90,258	88,745	87,329
Government Compensation: Pay, Military + Civilian	2,484	2,452	2,471	2,495	2,512	2,545	2,618

LARGEST PURCHASES BY INDUSTRIAL SECTORS

Total Direct Expenditures (Purchases and Pay)

Construction	274	273	272	272	277	286	301
Research Labs, Computer and Engineering Services	163	161	162	162	165	171	179
Trucking and Highway Passenger Transit	72	70	56	85	82	84	89
Electric Utilities	55	54	54	54	53	53	54
Petroleum Refining Excluding Fuel Oil	42	40	45	48	49	50	52

Indirect Defense Purchases Resulting from Direct Purchases

Research Labs, Computer and Engineering Services	131	127	125	125	124	125	129
Electric Utilities	76	73	71	72	71	70	73
Air Transportation	44	42	41	41	40	39	41
Eating and Drinking Places	29	28	27	29	29	29	31
Wholesale Trade	29	28	27	27	27	27	28

Idaho Summary

Rounded to Millions of 1999 dollars

1997 1998 1999 2000 2001 2002 2003

AGGREGATE MEASURES

Total Direct Expenditures (Purchases and Pay)	526	511	504	498	492	485	489
Indirect Defense Purchases Resulting from Direct Purchases	494	478	486	491	488	497	519
Indirect Defense Purchases Resulting from Direct Pay	250	242	237	236	234	233	238
Total Nondefense Expenditures	55,000	55,804	57,243	58,939	60,075	61,299	62,549
Total Output	56,271	57,036	58,470	60,164	61,289	62,515	63,796
Government Compensation: Pay, Military + Civilian	375	370	368	368	366	365	366

LARGEST PURCHASES BY INDUSTRIAL SECTORS

Total Direct Expenditures (Purchases and Pay)

Electric Utilities	64	58	54	50	48	44	43
Construction	29	27	26	26	26	26	26
Research Labs, Computer and Engineering Services	13	13	12	12	12	12	12
Communications Equipment and Electronic Components	8	8	8	7	7	7	7
Food and Tobacco	7	7	7	7	6	6	6

Indirect Defense Purchases Resulting from Direct Purchases

Communications Equipment and Electronic Components	131	136	147	156	163	172	183
Electric Utilities	86	76	73	68	63	59	60
Wholesale Trade	35	34	34	35	35	35	37
Computers	21	20	20	20	20	20	20
Finance and Insurance	20	19	19	19	19	19	20

Illinois Summary

Rounded to Millions of 1999 dollars

	1997	1998	1999	2000	2001	2002	2003
AGGREGATE MEASURES							
Total Direct Expenditures (Purchases and Pay)	4,235	4,068	4,022	3,999	3,886	3,884	3,944
Indirect Defense Purchases Resulting from Direct Purchases	4,835	4,621	4,598	4,607	4,499	4,577	4,728
Indirect Defense Purchases Resulting from Direct Pay	2,137	2,064	2,003	1,981	1,956	1,938	1,973
Total Nondefense Expenditures	635,916	642,219	651,604	665,185	675,181	686,505	698,176
Total Output	647,124	652,973	662,229	675,774	685,524	696,906	708,823
Government Compensation: Pay, Military + Civilian	2,224	2,172	2,149	2,137	2,119	2,104	2,126
LARGEST PURCHASES BY INDUSTRIAL SECTORS							
Total Direct Expenditures (Purchases and Pay)							
Research Labs, Computer and Engineering Services	305	294	288	279	275	273	274
Construction	185	175	169	166	165	166	166
Trucking and Highway Passenger Transit	175	166	162	167	111	139	143
Aerospace	175	161	165	172	184	191	198
Food and Tobacco	154	149	145	142	136	118	123
Indirect Defense Purchases Resulting from Direct Purchases							
Wholesale Trade	424	406	406	409	403	410	423
Finance and Insurance	343	329	328	329	316	325	337
Communications Equipment and Electronic Components	328	311	303	294	292	292	302
Metal Products	310	296	298	303	305	312	321
Petroleum Refining Excluding Fuel Oil	288	275	269	266	246	236	247

Indiana Summary

Rounded to Millions of 1999 dollars

	1997	1998	1999	2000	2001	2002	2003
AGGREGATE MEASURES							
Total Direct Expenditures (Purchases and Pay)	2,836	2,720	2,690	2,684	2,648	2,624	2,679
Indirect Defense Purchases Resulting from Direct Purchases	2,794	2,670	2,671	2,690	2,659	2,710	2,798
Indirect Defense Purchases Resulting from Direct Pay	1,068	1,036	1,012	1,008	1,000	996	1,020
Total Nondefense Expenditures	322,903	325,189	331,385	340,593	346,578	353,266	360,044
Total Output	329,606	331,619	337,763	346,979	352,891	359,602	366,546
Government Compensation: Pay, Military + Civilian	1,254	1,211	1,189	1,177	1,158	1,143	1,167

LARGEST PURCHASES BY INDUSTRIAL SECTORS

Total Direct Expenditures (Purchases and Pay)

Communications Equipment and Electronic Components	286	279	277	275	277	276	281
Research Labs, Computer and Engineering Services	284	276	272	266	265	263	267
Aerospace	261	240	242	241	246	250	257
Petroleum Refining Excluding Fuel Oil	64	61	61	61	58	53	56
Engines and Turbines	66	61	63	73	81	85	85

Indirect Defense Purchases Resulting from Direct Purchases

Ferrous Metals	343	321	318	319	318	320	322
Other Nonferrous Metals	226	215	217	221	226	233	241
Research Labs, Computer and Engineering Services	205	202	203	205	204	208	215
Metal Products	200	193	197	202	204	209	216
Wholesale Trade	157	151	152	154	152	155	161

Iowa Summary

Rounded to Millions of 1999 dollars

	1997	1998	1999	2000	2001	2002	2003
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AGGREGATE MEASURES

Total Direct Expenditures (Purchases and Pay)	852	813	806	795	789	787	803
Indirect Defense Purchases Resulting from Direct Purchases	798	763	761	767	754	772	800
Indirect Defense Purchases Resulting from Direct Pay	421	406	393	388	383	378	384
Total Nondefense Expenditures	140,729	141,871	143,984	147,448	149,983	152,621	155,307
Total Output	142,801	143,854	145,945	149,398	151,909	154,558	157,294
Government Compensation: Pay, Military + Civilian	272	268	266	265	264	262	264

LARGEST PURCHASES BY INDUSTRIAL SECTORS

Total Direct Expenditures (Purchases and Pay)

Communications Equipment and Electronic Components	245	237	234	230	231	236	246
Instruments	87	83	84	83	83	85	88
Metal Products	48	46	47	46	46	45	44
Research Labs, Computer and Engineering Services	38	35	35	34	34	35	36
Construction	33	32	31	30	30	31	31

Indirect Defense Purchases Resulting from Direct Purchases

Wholesale Trade	93	90	90	91	90	92	96
Finance and Insurance	68	65	64	64	62	64	66
Metal Products	50	48	48	49	50	51	53
Communications Equipment and Electronic Components	45	44	44	44	45	46	49
Other Nonferrous Metals	47	44	44	45	46	47	48

Kansas Summary

Rounded to Millions of 1999 dollars

	1997	1998	1999	2000	2001	2002	2003
AGGREGATE MEASURES							
Total Direct Expenditures (Purchases and Pay)	2,172	2,107	2,083	2,060	2,031	2,008	2,036
Indirect Defense Purchases Resulting from Direct Purchases	1,369	1,323	1,331	1,343	1,318	1,343	1,395
Indirect Defense Purchases Resulting from Direct Pay	681	658	640	635	627	622	634
Total Nondefense Expenditures	134,055	135,512	137,851	141,029	143,475	146,199	148,971
Total Output	138,278	139,601	141,907	145,068	147,453	150,173	153,038
Government Compensation: Pay, Military + Civilian	1,173	1,151	1,143	1,138	1,132	1,127	1,134

LARGEST PURCHASES BY INDUSTRIAL SECTORS

Total Direct Expenditures (Purchases and Pay)

Aerospace	448	428	428	428	433	430	442
Research Labs, Computer and Engineering Services	105	101	99	97	97	96	97
Construction	88	81	77	76	75	76	76
Food and Tobacco	59	57	55	54	52	45	47
Petroleum Refining Excluding Fuel Oil	52	51	47	34	31	20	23
Indirect Defense Purchases Resulting from Direct Purchases							
Aerospace	295	291	302	309	317	325	335
Petroleum Refining Excluding Fuel Oil	108	104	102	101	93	89	93
Automobile Repairs	92	89	89	91	86	90	94
Wholesale Trade	84	81	81	82	82	84	87
Crude Petroleum	78	74	72	71	66	62	66

Kentucky Summary

Rounded to Millions of 1999 dollars

	1997	1998	1999	2000	2001	2002	2003
AGGREGATE MEASURES							
Total Direct Expenditures (Purchases and Pay)	2,820	2,742	2,706	2,681	2,626	2,609	2,638
Indirect Defense Purchases Resulting from Direct Purchases	1,690	1,628	1,629	1,642	1,620	1,645	1,702
Indirect Defense Purchases Resulting from Direct Pay	1,033	998	973	966	955	949	968
Total Nondefense Expenditures	216,813	218,914	223,129	228,520	232,028	236,059	240,030
Total Output	222,358	224,284	228,439	233,810	237,232	241,264	245,340
Government Compensation: Pay, Military + Civilian	1,888	1,846	1,828	1,820	1,807	1,797	1,813

LARGEST PURCHASES BY INDUSTRIAL SECTORS

Total Direct Expenditures (Purchases and Pay)

Research Labs, Computer and Engineering Services	303	299	295	291	291	287	290
Construction	129	119	113	111	110	111	110
Air Transportation	86	82	81	83	66	74	76
Apparel and Household Textiles	53	49	48	49	42	43	44
Petroleum Refining Excluding Fuel Oil	41	39	36	25	21	11	12

Indirect Defense Purchases Resulting from Direct Purchases

Research Labs, Computer and Engineering Services	219	218	220	224	224	227	233
Petroleum Refining Excluding Fuel Oil	120	116	114	113	105	101	104
Other Nonferrous Metals	105	100	101	103	106	109	112
Wholesale Trade	99	95	96	97	96	97	101
Coal Mining	86	83	82	81	80	80	83

Louisiana Summary

Rounded to Millions of 1999 dollars

	1997	1998	1999	2000	2001	2002	2003
AGGREGATE MEASURES							
Total Direct Expenditures (Purchases and Pay)	4,026	3,887	3,832	3,856	3,772	3,755	3,816
Indirect Defense Purchases Resulting from Direct Purchases	2,249	2,169	2,149	2,148	2,047	2,032	2,122
Indirect Defense Purchases Resulting from Direct Pay	945	913	889	882	872	866	882
Total Nondefense Expenditures	214,745	218,796	221,349	225,138	228,274	231,604	235,154
Total Output	221,959	225,759	228,213	232,017	234,958	238,248	241,967
Government Compensation: Pay, Military + Civilian	1,471	1,443	1,431	1,425	1,416	1,408	1,418

LARGEST PURCHASES BY INDUSTRIAL SECTORS

Total Direct Expenditures (Purchases and Pay)

Ships and Boats	977	943	936	989	996	1,036	1,051
Petroleum Refining Excluding Fuel Oil	429	413	401	384	356	310	324
Fuel Oil	304	292	288	292	275	254	265
Construction	275	247	231	226	223	227	224
Other Chemicals	127	125	130	131	132	140	150

Indirect Defense Purchases Resulting from Direct Purchases

Crude Petroleum	540	522	513	507	475	451	481
Petroleum Refining Excluding Fuel Oil	490	472	466	463	431	412	427
Other Chemicals	140	134	134	134	132	134	139
Wholesale Trade	108	104	105	106	106	108	112
Fuel Oil	89	85	83	82	72	74	76

Maine Summary

Rounded to Millions of 1999 dollars

2003

2002

2001

2000

1999

1998

1997

AGGREGATE MEASURES

Total Direct Expenditures (Purchases and Pay)	2,342	2,258	2,238	2,316	2,292	2,359	2,396
Indirect Defense Purchases Resulting from Direct Purchases	381	367	368	371	364	372	387
Indirect Defense Purchases Resulting from Direct Pay	338	328	320	318	316	314	321
Total Nondefense Expenditures	59,315	60,134	61,156	62,513	63,499	64,552	65,680
Total Output	62,376	63,088	64,083	65,519	66,470	67,598	68,784
Government Compensation: Pay, Military + Civilian	626	607	598	593	585	578	588

LARGEST PURCHASES BY INDUSTRIAL SECTORS

Total Direct Expenditures (Purchases and Pay)

Ships and Boats	1,440	1,390	1,381	1,462	1,472	1,534	1,557
Metal Products	67	65	68	71	73	74	76
Trucking and Highway Passenger Transit	58	55	53	55	36	46	47
Construction	40	38	37	36	36	36	36
Medical Instruments and Supplies	31	27	26	27	19	23	23

Indirect Defense Purchases Resulting from Direct Purchases

Communications Equipment and Electronic Components	63	64	66	68	71	73	78
Paper	46	44	44	44	42	42	44
Wholesale Trade	34	33	33	33	33	33	34
Finance and Insurance	23	22	22	22	21	21	22
Aerospace	19	20	21	21	21	22	23

Maryland Summary

Rounded to Millions of 1999 dollars

1997

1998

1999

2000

2001

2002

2003

AGGREGATE MEASURES

Total Direct Expenditures (Purchases and Pay)	9,428	9,093	8,980	8,909	8,780	8,805	9,034
Indirect Defense Purchases Resulting from Direct Purchases	3,251	3,138	3,141	3,152	3,111	3,181	3,297
Indirect Defense Purchases Resulting from Direct Pay	1,811	1,752	1,708	1,697	1,680	1,670	1,705
Total Nondefense Expenditures	298,481	303,404	309,244	316,219	321,901	327,884	334,048
Total Output	312,969	317,386	323,073	329,976	335,471	341,539	348,082
Government Compensation: Pay, Military + Civilian	3,886	3,763	3,702	3,669	3,617	3,577	3,642

LARGEST PURCHASES BY INDUSTRIAL SECTORS

Total Direct Expenditures (Purchases and Pay)

Research Labs, Computer and Engineering Services	2,234	2,155	2,120	2,066	2,054	2,051	2,087
Aerospace	465	436	445	454	473	487	504
Communications Services	426	420	415	418	424	431	479
Construction	357	337	325	319	319	321	320
Communications Equipment and Electronic Components	338	328	326	322	324	324	332

Indirect Defense Purchases Resulting from Direct Purchases

Research Labs, Computer and Engineering Services	1,613	1,572	1,583	1,592	1,584	1,621	1,679
Wholesale Trade	138	133	133	135	135	138	144
Gas Utilities	140	124	117	109	102	94	94
Automobile Repairs	116	112	112	114	109	114	118
Electric Utilities	99	96	97	98	97	100	104

Massachusetts Summary

Rounded to Millions of 1999 dollars

	1997	1998	1999	2000	2001	2002	2003
AGGREGATE MEASURES							
Total Direct Expenditures (Purchases and Pay)	7,933	7,572	7,544	7,493	7,530	7,648	7,886
Indirect Defense Purchases Resulting from Direct Purchases	4,580	4,417	4,443	4,464	4,445	4,599	4,827
Indirect Defense Purchases Resulting from Direct Pay	1,088	1,048	1,016	1,003	988	977	992
Total Nondefense Expenditures	357,346	363,386	370,508	379,378	386,391	393,498	400,827
Total Output	370,946	376,423	383,511	392,337	399,353	406,720	414,531
Government Compensation: Pay, Military + Civilian	996	969	956	948	936	927	941

LARGEST PURCHASES BY INDUSTRIAL SECTORS

Total Direct Expenditures (Purchases and Pay)	2,912	2,776	2,733	2,661	2,650	2,682	2,761
Research Labs, Computer and Engineering Services	1,657	1,551	1,584	1,617	1,687	1,749	1,811
Aerospace	700	677	670	660	664	675	704
Communications Equipment and Electronic Components	356	341	343	346	351	356	370
Instruments	254	244	253	260	265	269	274
Metal Products							
Indirect Defense Purchases Resulting from Direct Purchases	2,102	2,025	2,041	2,050	2,044	2,119	2,222
Research Labs, Computer and Engineering Services	401	391	394	398	406	417	439
Communications Equipment and Electronic Components	202	196	197	200	193	200	209
Finance and Insurance	196	188	189	192	190	195	203
Wholesale Trade	149	141	145	142	141	142	144
Aerospace							

Michigan Summary

Rounded to Millions of 1999 dollars

2003

2002

2001

2000

1999

1998

1997

AGGREGATE MEASURES

Total Direct Expenditures (Purchases and Pay)	5,136	4,842	4,864	5,004	5,108	5,157	5,235
Indirect Defense Purchases Resulting from Direct Purchases	3,400	3,242	3,247	3,285	3,252	3,322	3,432
Indirect Defense Purchases Resulting from Direct Pay	1,330	1,284	1,247	1,233	1,217	1,202	1,220
Total Nondefense Expenditures	519,032	516,750	524,449	540,083	547,280	555,667	564,944
Total Output	528,899	526,120	533,809	549,608	556,859	565,351	574,834
Government Compensation: Pay, Military + Civilian	910	886	873	867	855	846	860

LARGEST PURCHASES BY INDUSTRIAL SECTORS

Total Direct Expenditures (Purchases and Pay)

Motor Vehicles	1,411	1,294	1,307	1,417	1,512	1,549	1,578
Other Nonelectrical Machinery	766	746	790	819	836	853	859
Research Labs, Computer and Engineering Services	492	472	463	445	434	430	432
Other Transportation Equipment	433	388	381	408	435	447	453
Metal Products	179	174	184	194	201	207	213

Indirect Defense Purchases Resulting from Direct Purchases

Metal Products	443	426	433	444	451	463	480
Research Labs, Computer and Engineering Services	355	345	346	342	335	340	347
Wholesale Trade	243	233	233	236	233	237	245
Motor Vehicles	206	187	184	193	197	201	205
Other Chemicals	164	157	158	158	156	159	166

Minnesota Summary

Rounded to Millions of 1999 dollars

	1997	1998	1999	2000	2001	2002	2003
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AGGREGATE MEASURES

Total Direct Expenditures (Purchases and Pay)	2,500	2,425	2,446	2,476	2,495	2,507	2,558
Indirect Defense Purchases Resulting from Direct Purchases	2,072	1,993	1,995	2,009	1,977	2,016	2,090
Indirect Defense Purchases Resulting from Direct Pay	779	759	742	739	736	735	755
Total Nondefense Expenditures	258,853	262,747	268,169	275,241	280,927	287,121	293,599
Total Output	264,207	267,926	273,355	280,467	286,137	292,382	299,005
Government Compensation: Pay, Military + Civilian	441	434	431	429	426	423	426

LARGEST PURCHASES BY INDUSTRIAL SECTORS

Total Direct Expenditures (Purchases and Pay)

Metal Products	806	785	824	862	888	909	930
Research Labs, Computer and Engineering Services	362	349	342	332	328	326	330
Computers	319	311	304	304	304	299	304
Other Electrical Equipment	83	82	81	80	81	83	89
Aerospace	83	78	80	82	87	89	93

Indirect Defense Purchases Resulting from Direct Purchases

Research Labs, Computer and Engineering Services	261	254	256	256	253	258	266
Wholesale Trade	178	173	174	177	176	181	189
Communications Equipment and Electronic Components	160	156	157	159	164	169	178
Finance and Insurance	116	112	112	113	109	112	117
Printing and Publishing	115	110	110	109	108	109	113

Mississippi Summary

Rounded to Millions of 1999 dollars

	1997	1998	1999	2000	2001	2002	2003
AGGREGATE MEASURES							
Total Direct Expenditures (Purchases and Pay)	4,278	4,117	4,071	4,129	4,051	4,130	4,201
Indirect Defense Purchases Resulting from Direct Purchases	982	941	940	949	933	954	999
Indirect Defense Purchases Resulting from Direct Pay	685	660	641	635	627	621	632
Total Nondefense Expenditures	119,495	120,703	122,653	125,373	127,192	129,121	131,210
Total Output	125,417	126,398	128,283	131,062	132,779	134,800	137,016
Government Compensation: Pay, Military + Civilian	1,466	1,432	1,416	1,408	1,396	1,385	1,401

LARGEST PURCHASES BY INDUSTRIAL SECTORS

Total Direct Expenditures (Purchases and Pay)

Ships and Boats	1,746	1,689	1,672	1,733	1,740	1,795	1,821
Research Labs, Computer and Engineering Services	206	197	196	198	207	217	232
Medical Instruments and Supplies	183	162	157	156	112	131	133
Aerospace	131	123	125	129	136	139	144
Construction	116	107	102	100	99	100	100

Indirect Defense Purchases Resulting from Direct Purchases

Research Labs, Computer and Engineering Services	149	143	146	153	160	171	187
Petroleum Refining Excluding Fuel Oil	96	92	91	90	84	81	85
Wholesale Trade	55	53	53	54	53	54	55
Metal Products	45	43	44	45	46	47	48
Eating and Drinking Places	37	35	34	34	33	33	34

Missouri Summary

Rounded to Millions of 1999 dollars

	1997	1998	1999	2000	2001	2002	2003
AGGREGATE MEASURES							
Total Direct Expenditures (Purchases and Pay)	6,627	6,286	6,295	6,336	6,444	6,548	6,718
Indirect Defense Purchases Resulting from Direct Purchases	2,961	2,853	2,862	2,880	2,843	2,912	3,010
Indirect Defense Purchases Resulting from Direct Pay	1,250	1,210	1,178	1,168	1,155	1,147	1,170
Total Nondefense Expenditures	296,069	299,674	305,106	312,691	317,705	323,572	329,702
Total Output	306,908	310,024	315,442	323,075	328,148	334,179	340,601
Government Compensation: Pay, Military + Civilian	1,887	1,837	1,813	1,801	1,780	1,764	1,789

LARGEST PURCHASES BY INDUSTRIAL SECTORS

Total Direct Expenditures (Purchases and Pay)

Aerospace	2,358	2,177	2,252	2,366	2,536	2,661	2,771
Research Labs, Computer and Engineering Services	1,457	1,389	1,359	1,304	1,274	1,268	1,279
Metal Products	192	184	186	185	185	182	181
Construction	138	128	123	120	120	121	120
Communications Services	82	79	78	77	75	73	74

Indirect Defense Purchases Resulting from Direct Purchases

Research Labs, Computer and Engineering Services	1,052	1,014	1,015	1,005	983	1,002	1,029
Aerospace	243	242	249	262	274	284	294
Wholesale Trade	178	171	173	175	174	177	183
Finance and Insurance	124	120	119	120	116	120	125
Metal Products	118	114	117	120	122	125	130

Montana Summary

Rounded to Millions of 1999 dollars

	1997	1998	1999	2000	2001	2002	2003
AGGREGATE MEASURES							
Total Direct Expenditures (Purchases and Pay)	425	416	412	412	405	403	406
Indirect Defense Purchases Resulting from Direct Purchases	232	222	222	223	216	219	227
Indirect Defense Purchases Resulting from Direct Pay	213	205	200	198	195	193	196
Total Nondefense Expenditures	32,429	32,853	33,393	34,148	34,638	35,222	35,829
Total Output	33,298	33,696	34,226	34,980	35,454	36,037	36,659
Government Compensation: Pay, Military + Civilian	320	315	314	313	311	310	312

LARGEST PURCHASES BY INDUSTRIAL SECTORS

Total Direct Expenditures (Purchases and Pay)							
Construction	22	21	20	20	20	20	20
Petroleum Refining Excluding Fuel Oil	15	14	14	14	13	12	13
Fuel Oil	13	13	13	13	12	11	12
Electric Utilities	9	9	9	9	9	9	9
Research Labs, Computer and Engineering Services	6	6	5	5	5	5	5
Indirect Defense Purchases Resulting from Direct Purchases							
Petroleum Refining Excluding Fuel Oil	24	24	23	23	21	21	22
Wholesale Trade	22	21	21	21	21	21	22
Finance and Insurance	13	13	13	13	12	13	13
Crude Petroleum	13	12	12	12	11	10	11
Other Nonferrous Metals	13	12	12	12	13	13	13

Nebraska Summary

Rounded to Millions of 1999 dollars

	1997	1998	1999	2000	2001	2002	2003
AGGREGATE MEASURES							
Total Direct Expenditures (Purchases and Pay)	1,151	1,124	1,112	1,104	1,093	1,078	1,089
Indirect Defense Purchases Resulting from Direct Purchases	625	603	600	603	591	602	624
Indirect Defense Purchases Resulting from Direct Pay	457	443	432	428	423	420	429
Total Nondefense Expenditures	89,198	90,385	92,087	94,350	95,868	97,695	99,592
Total Output	91,431	92,555	94,231	96,486	97,975	99,795	101,733
Government Compensation: Pay, Military + Civilian	771	758	752	750	746	742	747
LARGEST PURCHASES BY INDUSTRIAL SECTORS							
Total Direct Expenditures (Purchases and Pay)	147	143	140	138	138	136	138
Research Labs, Computer and Engineering Services	93	90	88	86	82	71	75
Food and Tobacco	43	41	40	39	39	39	39
Construction	14	13	13	13	13	13	13
Computers	13	13	13	13	13	13	14
Aerospace							
Indirect Defense Purchases Resulting from Direct Purchases	106	104	105	106	106	108	111
Research Labs, Computer and Engineering Services	60	58	58	59	58	59	61
Wholesale Trade	59	57	54	53	53	52	54
Communications Equipment and Electronic Components	49	48	48	48	46	48	50
Finance and Insurance	36	36	36	36	36	38	41
Communications Services							

Nevada Summary

Rounded to Millions of 1999 dollars

2003

2002

2001

2000

1999

1998

1997

AGGREGATE MEASURES

Total Direct Expenditures (Purchases and Pay)	1,136	1,116	1,107	1,102	1,094	1,091	1,093
Indirect Defense Purchases Resulting from Direct Purchases	434	420	421	425	418	429	446
Indirect Defense Purchases Resulting from Direct Pay	762	742	730	726	720	717	733
Total Nondefense Expenditures	70,223	71,943	74,298	76,811	78,668	80,837	83,238
Total Output	72,556	74,221	76,557	79,065	80,900	83,074	85,510
Government Compensation: Pay, Military + Civilian	833	826	824	823	820	818	819

LARGEST PURCHASES BY INDUSTRIAL SECTORS

Total Direct Expenditures (Purchases and Pay)

Research Labs, Computer and Engineering Services	105	103	101	99	98	97	97
Construction	62	57	53	52	52	53	52
Metal Products	35	34	34	33	33	32	32
Communications Equipment and Electronic Components	20	19	19	19	19	19	19
Water and Sanitation	15	15	15	15	15	15	15

Indirect Defense Purchases Resulting from Direct Purchases

Research Labs, Computer and Engineering Services	76	75	75	76	76	77	78
Nonferrous Metals Mining	62	60	61	61	62	64	67
Wholesale Trade	30	29	29	29	29	30	31
Communications Services	26	25	25	25	25	26	28
Construction	22	21	22	22	21	22	22

New Hampshire Summary

Rounded to Millions of 1999 dollars.

	1997	1998	1999	2000	2001	2002	2003
AGGREGATE MEASURES							
Total Direct Expenditures (Purchases and Pay)	784	763	758	749	744	746	762
Indirect Defense Purchases Resulting from Direct Purchases	497	478	480	484	482	496	515
Indirect Defense Purchases Resulting from Direct Pay	235	227	221	219	216	214	218
Total Nondefense Expenditures	54,945	55,710	56,794	58,263	59,396	60,582	61,785
Total Output	56,461	57,178	58,253	59,715	60,838	62,038	63,281
Government Compensation: Pay, Military + Civilian	269	266	265	264	263	261	262

LARGEST PURCHASES BY INDUSTRIAL SECTORS

Total Direct Expenditures (Purchases and Pay)							
Communications Equipment and Electronic Components	163	159	158	153	150	150	153
Research Labs, Computer and Engineering Services	93	90	88	86	85	84	86
Instruments	64	62	62	61	62	62	63
Construction	30	27	26	26	26	26	26
Other Nonelectrical Machinery	26	26	27	28	28	29	29
Indirect Defense Purchases Resulting from Direct Purchases							
Communications Equipment and Electronic Components	70	68	69	70	72	75	79
Research Labs, Computer and Engineering Services	67	65	66	66	65	67	69
Other Nonferrous Metals	31	29	30	30	31	32	33
Wholesale Trade	28	27	27	28	27	28	29
Other Nonelectrical Machinery	24	23	23	23	23	24	24

New Jersey Summary

Rounded to Millions of 1999 dollars

	1997	1998	1999	2000	2001	2002	2003
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AGGREGATE MEASURES

Total Direct Expenditures (Purchases and Pay)	6,099	5,871	5,796	5,764	5,597	5,768	6,057
Indirect Defense Purchases Resulting from Direct Purchases	3,857	3,697	3,704	3,752	3,724	3,849	4,048
Indirect Defense Purchases Resulting from Direct Pay	1,467	1,415	1,374	1,357	1,340	1,326	1,350
Total Nondefense Expenditures	427,521	433,061	440,488	450,188	457,825	465,985	474,380
Total Output	438,942	444,041	451,358	461,058	468,485	476,925	485,832
Government Compensation: Pay, Military + Civilian	1,712	1,655	1,626	1,610	1,586	1,566	1,598

LARGEST PURCHASES BY INDUSTRIAL SECTORS

Total Direct Expenditures (Purchases and Pay)

Research Labs, Computer and Engineering Services	1,419	1,352	1,344	1,352	1,402	1,459	1,553
Water Transportation	516	502	492	491	386	433	438
Communications Equipment and Electronic Components	372	360	357	345	341	343	353
Aerospace	349	334	333	321	315	318	324
Instruments	267	254	255	252	251	254	262

Indirect Defense Purchases Resulting from Direct Purchases

Research Labs, Computer and Engineering Services	1,024	987	1,004	1,042	1,081	1,153	1,250
Wholesale Trade	345	331	332	335	332	339	351
Other Chemicals	257	243	241	240	235	238	247
Communications Services	240	232	232	232	232	240	259
Finance and Insurance	211	203	203	205	198	205	214

New Mexico Summary

Rounded to Millions of 1999 dollars

2003

2002

2001

2000

1999

1998

1997

AGGREGATE MEASURES

Total Direct Expenditures (Purchases and Pay)	2,157	2,137	2,192	2,220	2,251	2,322	2,161
Indirect Defense Purchases Resulting from Direct Purchases	912	929	925	916	905	925	969
Indirect Defense Purchases Resulting from Direct Pay	576	573	582	586	601	622	586
Total Nondefense Expenditures	81,924	83,656	80,464	78,362	76,647	75,190	85,665
Total Output	85,569	87,294	84,163	82,084	80,405	79,059	89,380
Government Compensation: Pay, Military + Civilian	1,247	1,239	1,257	1,263	1,276	1,304	1,250

LARGEST PURCHASES BY INDUSTRIAL SECTORS

Total Direct Expenditures (Purchases and Pay)

Research Labs, Computer and Engineering Services	407	404	415	430	438	456	407
Construction	132	133	133	135	141	149	133
Finance and Insurance	54	49	56	55	56	58	52
Aerospace	57	58	56	56	56	59	60
Communications Equipment and Electronic Components	53	54	53	53	53	55	55

Indirect Defense Purchases Resulting from Direct Purchases

Research Labs, Computer and Engineering Services	314	319	320	321	320	329	327
Communications Equipment and Electronic Components	151	160	143	135	125	120	173
Crude Petroleum	86	81	91	92	92	94	85
Wholesale Trade	32	32	32	32	31	32	34
Petroleum Refining Excluding Fuel Oil	26	26	28	27	28	28	27

New York Summary

Rounded to Millions of 1999 dollars

1997 1998 1999 2000 2001 2002 2003

AGGREGATE MEASURES

Total Direct Expenditures (Purchases and Pay)	8,089	7,758	7,723	7,680	7,581	7,657	7,858
Indirect Defense Purchases Resulting from Direct Purchases	6,210	5,962	5,961	6,003	5,909	6,060	6,298
Indirect Defense Purchases Resulting from Direct Pay	2,554	2,454	2,371	2,331	2,289	2,254	2,282
Total Nondefense Expenditures	859,585	868,396	880,028	896,752	908,431	921,690	935,548
Total Output	876,440	884,572	896,085	912,767	924,212	937,663	951,988
Government Compensation: Pay, Military + Civilian	1,900	1,855	1,834	1,823	1,807	1,794	1,814

LARGEST PURCHASES BY INDUSTRIAL SECTORS

Total Direct Expenditures (Purchases and Pay)

Research Labs, Computer and Engineering Services	1,115	1,063	1,048	1,031	1,039	1,059	1,099
Aerospace	1,067	997	1,015	1,033	1,075	1,109	1,147
Communications Equipment and Electronic Components	969	942	933	902	888	893	918
Instruments	772	738	748	768	786	800	838
Metal Products	422	407	421	432	440	446	453

Indirect Defense Purchases Resulting from Direct Purchases

Research Labs, Computer and Engineering Services	805	776	783	794	801	837	885
Finance and Insurance	730	709	712	726	705	730	765
Wholesale Trade	555	530	529	532	524	533	552
Communications Equipment and Electronic Components	411	402	406	414	427	441	467
Communications Services	320	309	307	307	304	314	336

North Carolina Summary

Rounded to Millions of 1999 dollars

	1997	1998	1999	2000	2001	2002	2003
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AGGREGATE MEASURES

Total Direct Expenditures (Purchases and Pay)	6,335	6,150	6,080	6,042	5,927	5,930	5,976
Indirect Defense Purchases Resulting from Direct Purchases	2,852	2,732	2,737	2,766	2,703	2,785	2,891
Indirect Defense Purchases Resulting from Direct Pay	2,349	2,277	2,224	2,213	2,194	2,183	2,233
Total Nondefense Expenditures	379,744	385,351	393,787	405,001	413,538	422,446	431,808
Total Output	391,283	396,513	404,831	416,025	424,365	433,347	442,912
Government Compensation: Pay, Military + Civilian	4,564	4,487	4,458	4,445	4,425	4,408	4,429

LARGEST PURCHASES BY INDUSTRIAL SECTORS

Total Direct Expenditures (Purchases and Pay)

Construction	285	268	259	255	257	266	275
Research Labs, Computer and Engineering Services	244	234	228	221	218	216	216
Instruments	104	101	100	98	98	98	100
Wholesale Trade	105	100	98	94	90	87	88
Electric Industrial Appliances and Distribution Equipment	109	94	86	82	79	77	75

Indirect Defense Purchases Resulting from Direct Purchases

Wholesale Trade	218	211	214	218	217	223	232
Communications Equipment and Electronic Components	195	190	190	190	194	198	209
Textiles (Except Knitting)	194	175	172	173	151	161	165
Research Labs, Computer and Engineering Services	176	171	170	170	168	170	174
Other Chemicals	149	143	145	146	145	149	156

North Dakota Summary
Rounded to Millions of 1999 dollars

	1997	1998	1999	2000	2001	2002	2003
AGGREGATE MEASURES							
Total Direct Expenditures (Purchases and Pay)	703	691	683	682	683	709	753
Indirect Defense Purchases Resulting from Direct Purchases	223	214	213	214	208	210	218
Indirect Defense Purchases Resulting from Direct Pay	246	237	231	230	227	226	230
Total Nondefense Expenditures	28,379	28,787	29,258	29,961	30,455	30,997	31,525
Total Output	29,551	29,930	30,385	31,087	31,573	32,143	32,726
Government Compensation: Pay, Military + Civilian	463	454	450	449	447	446	448

LARGEST PURCHASES BY INDUSTRIAL SECTORS

Total Direct Expenditures (Purchases and Pay)

Communications Services	69	73	72	73	84	108	148
Construction	65	62	60	59	59	59	59
Electric Utilities	26	26	26	26	27	26	27
Trucking and Highway Passenger Transit	13	12	12	12	8	10	11
Apparel and Household Textiles	13	11	11	11	9	10	10

Indirect Defense Purchases Resulting from Direct Purchases

Electric Utilities	35	34	35	35	35	36	37
Crude Petroleum	27	26	25	25	23	22	23
Wholesale Trade	24	23	23	23	23	24	24
Gas Utilities	16	16	16	16	15	15	16
Communications Services	12	12	12	12	12	12	13

Ohio Summary

Rounded to Millions of 1999 dollars

	1997	1998	1999	2000	2001	2002	2003
AGGREGATE MEASURES							
Total Direct Expenditures (Purchases and Pay)	6,576	6,367	6,304	6,287	6,222	6,205	6,338
Indirect Defense Purchases Resulting from Direct Purchases	5,360	5,121	5,122	5,150	5,084	5,178	5,348
Indirect Defense Purchases Resulting from Direct Pay	2,150	2,076	2,018	1,997	1,971	1,952	1,986
Total Nondefense Expenditures	618,456	623,123	634,375	650,727	661,744	673,929	685,984
Total Output	632,643	636,689	647,819	664,162	675,022	687,265	699,657
Government Compensation: Pay, Military + Civilian	2,862	2,763	2,711	2,683	2,639	2,604	2,661
LARGEST PURCHASES BY INDUSTRIAL SECTORS							
Total Direct Expenditures (Purchases and Pay)							
Research Labs, Computer and Engineering Services	983	949	934	908	901	898	912
Aerospace	886	829	845	865	903	931	964
Other Transportation Equipment	338	301	295	326	357	370	375
Trucking and Highway Passenger Transit	174	165	161	166	110	138	141
Other Nonelectrical Machinery	149	146	152	156	158	159	160
Indirect Defense Purchases Resulting from Direct Purchases							
Research Labs, Computer and Engineering Services	709	692	697	700	695	710	734
Ferrous Metals	443	414	410	411	410	413	416
Metal Products	418	400	404	413	416	426	439
Wholesale Trade	343	328	328	332	327	332	342
Other Chemicals	271	260	261	262	259	265	277

Oklahoma Summary

Rounded to Millions of 1999 dollars

	1997	1998	1999	2000	2001	2002	2003
AGGREGATE MEASURES							
Total Direct Expenditures (Purchases and Pay)	3,382	3,279	3,239	3,225	3,179	3,161	3,207
Indirect Defense Purchases Resulting from Direct Purchases	1,866	1,798	1,791	1,799	1,745	1,758	1,830
Indirect Defense Purchases Resulting from Direct Pay	1,126	1,088	1,060	1,052	1,041	1,033	1,054
Total Nondefense Expenditures	165,237	167,850	170,441	174,269	177,177	180,346	183,508
Total Output	171,611	174,016	176,532	180,347	183,142	186,299	189,599
Government Compensation: Pay, Military + Civilian	2,462	2,399	2,370	2,355	2,332	2,314	2,342

LARGEST PURCHASES BY INDUSTRIAL SECTORS

Total Direct Expenditures (Purchases and Pay)							
Research Labs, Computer and Engineering Services	218	213	210	206	206	204	206
Construction	177	168	162	159	159	160	160
Aerospace	154	145	148	152	160	164	170
Petroleum Refining Excluding Fuel Oil	67	64	63	64	60	56	58
Automobile Repairs	60	57	56	56	43	50	51
Indirect Defense Purchases Resulting from Direct Purchases							
Crude Petroleum	345	333	325	321	300	284	302
Automobile Repairs	252	244	244	248	236	247	256
Research Labs, Computer and Engineering Services	158	155	156	159	159	161	166
Petroleum Refining Excluding Fuel Oil	129	124	122	122	113	109	113
Communications Equipment and Electronic Components	79	76	75	75	76	78	82

Oregon Summary

Rounded to Millions of 1999 dollars

	1997	1998	1999	2000	2001	2002	2003
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AGGREGATE MEASURES

Total Direct Expenditures (Purchases and Pay)	747	725	717	712	703	697	700
Indirect Defense Purchases Resulting from Direct Purchases	1,105	1,076	1,094	1,113	1,111	1,147	1,201
Indirect Defense Purchases Resulting from Direct Pay	563	547	532	528	522	518	529
Total Nondefense Expenditures	159,773	161,892	165,232	169,623	172,701	176,147	179,714
Total Output	162,190	164,243	167,578	171,978	175,039	178,512	182,146
Government Compensation: Pay, Military + Civilian	540	533	531	529	526	523	525

LARGEST PURCHASES BY INDUSTRIAL SECTORS

Total Direct Expenditures (Purchases and Pay)

Construction	35	31	29	29	28	29	28
Research Labs, Computer and Engineering Services	26	24	24	23	22	22	22
Computers	22	21	20	19	19	18	18
Instruments	16	16	16	16	17	17	18
Communications Equipment and Electronic Components	12	12	11	11	11	11	11

Indirect Defense Purchases Resulting from Direct Purchases

Communications Equipment and Electronic Components	257	262	278	290	304	321	345
Wholesale Trade	103	99	100	102	101	104	108
Finance and Insurance	69	66	66	66	64	66	68
Other Nonferrous Metals	63	60	61	62	64	66	68
Lumber	49	46	45	45	44	44	45

Pennsylvania Summary

Rounded to Millions of 1999 dollars

	1997	1998	1999	2000	2001	2002	2003
AGGREGATE MEASURES							
Total Direct Expenditures (Purchases and Pay)	6,642	6,348	6,274	6,183	6,068	5,995	6,118
Indirect Defense Purchases Resulting from Direct Purchases	5,043	4,825	4,817	4,843	4,756	4,847	5,009
Indirect Defense Purchases Resulting from Direct Pay	2,180	2,108	2,050	2,029	2,006	1,988	2,026
Total Nondefense Expenditures	610,774	616,695	625,818	639,057	648,523	658,639	669,132
Total Output	624,639	629,977	638,959	652,113	661,353	671,470	682,285
Government Compensation: Pay, Military + Civilian	2,760	2,662	2,611	2,583	2,538	2,502	2,559

LARGEST PURCHASES BY INDUSTRIAL SECTORS

Total Direct Expenditures (Purchases and Pay)							
Research Labs, Computer and Engineering Services	892	856	839	811	798	794	802
Metal Products	864	830	850	864	876	883	893
Aerospace	285	265	272	281	297	308	320
Fuel Oil	226	216	201	155	134	79	77
Medical Instruments and Supplies	218	210	213	211	201	206	209
Indirect Defense Purchases Resulting from Direct Purchases							
Research Labs, Computer and Engineering Services	644	625	627	625	615	627	645
Ferrous Metals	425	397	393	393	392	394	396
Wholesale Trade	333	320	321	325	322	329	341
Petroleum Refining Excluding Fuel Oil	309	295	288	284	262	250	259
Communications Equipment and Electronic Components	296	292	298	307	319	331	350

Rhode Island Summary
Rounded to Millions of 1999 dollars

	1997	1998	1999	2000	2001	2002	2003
AGGREGATE MEASURES							
Total Direct Expenditures (Purchases and Pay)	1,653	1,595	1,587	1,568	1,544	1,544	1,575
Indirect Defense Purchases Resulting from Direct Purchases	459	442	446	454	455	471	495
Indirect Defense Purchases Resulting from Direct Pay	272	263	257	255	252	251	256
Total Nondefense Expenditures	47,281	47,966	48,762	49,862	50,621	51,437	52,251
Total Output	49,664	50,265	51,050	52,138	52,872	53,701	54,577
Government Compensation: Pay, Military + Civilian	518	502	494	490	483	478	486

LARGEST PURCHASES BY INDUSTRIAL SECTORS

Total Direct Expenditures (Purchases and Pay)							
Medical Instruments and Supplies	496	483	493	489	483	487	493
Research Labs, Computer and Engineering Services	259	250	248	249	256	262	276
Instruments	105	100	101	103	105	106	111
Communications Services	74	68	63	52	48	36	35
Construction	46	44	43	42	42	42	42
Indirect Defense Purchases Resulting from Direct Purchases							
Research Labs, Computer and Engineering Services	187	182	185	191	197	207	222
Other Nonferrous Metals	30	28	28	29	29	30	31
Wholesale Trade	26	25	25	25	25	25	26
Finance and Insurance	21	20	20	20	20	20	21
Metal Products	20	19	19	19	20	20	21

South Carolina Summary

Rounded to Millions of 1999 dollars

	1997	1998	1999	2000	2001	2002	2003
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AGGREGATE MEASURES

Total Direct Expenditures (Purchases and Pay)	4,023	3,899	3,854	3,845	3,677	3,716	3,750
Indirect Defense Purchases Resulting from Direct Purchases	1,577	1,506	1,505	1,517	1,486	1,530	1,587
Indirect Defense Purchases Resulting from Direct Pay	1,221	1,182	1,154	1,147	1,136	1,129	1,153
Total Nondefense Expenditures	191,602	194,512	198,453	203,503	207,700	211,809	216,257
Total Output	198,424	201,100	204,967	210,011	214,000	218,184	222,749
Government Compensation: Pay, Military + Civilian	2,469	2,429	2,412	2,405	2,391	2,380	2,393

LARGEST PURCHASES BY INDUSTRIAL SECTORS

Total Direct Expenditures (Purchases and Pay)

Railroads	365	346	338	347	229	287	293
Research Labs, Computer and Engineering Services	242	230	222	215	212	211	211
Construction	181	171	165	162	162	162	162
Finance and Insurance	91	88	87	88	85	78	81
Aerospace	74	68	71	75	81	85	89

Indirect Defense Purchases Resulting from Direct Purchases

Research Labs, Computer and Engineering Services	175	168	166	166	164	166	170
Other Chemicals	171	163	163	164	163	167	175
Textiles (Except Knitting)	140	126	124	124	108	115	119
Wholesale Trade	79	76	77	78	77	79	81
Communications Equipment and Electronic Components	77	75	77	78	82	86	92

South Dakota Summary

Rounded to Millions of 1999 dollars

	1997	1998	1999	2000	2001	2002	2003
AGGREGATE MEASURES							
Total Direct Expenditures (Purchases and Pay)	760	719	754	786	736	646	647
Indirect Defense Purchases Resulting from Direct Purchases	1,974	1,933	2,099	2,201	2,108	1,777	1,820
Indirect Defense Purchases Resulting from Direct Pay	180	175	170	169	167	165	169
Total Nondefense Expenditures	32,092	32,562	33,252	34,238	34,932	35,677	36,450
Total Output	35,007	35,388	36,275	37,393	37,943	38,266	39,086
Government Compensation: Pay, Military + Civilian	278	274	272	271	270	269	270
LARGEST PURCHASES BY INDUSTRIAL SECTORS							
Total Direct Expenditures (Purchases and Pay)							
Real Estate	345	316	356	390	350	262	260
Construction	26	25	24	24	24	24	24
Medical Instruments and Supplies	19	17	16	16	12	14	14
Research Labs, Computer and Engineering Services	17	16	15	15	15	15	15
Communications Equipment and Electronic Components	13	12	12	12	12	13	13
Indirect Defense Purchases Resulting from Direct Purchases							
Real Estate	1,684	1,655	1,820	1,921	1,832	1,502	1,535
Communications Equipment and Electronic Components	44	42	43	44	46	49	53
Automobile Repairs	33	30	29	25	25	20	19
Wholesale Trade	22	21	21	22	21	22	23
Noncompetitive Imports	18	18	19	20	19	16	17

Tennessee Summary

Rounded to Millions of 1999 dollars

	1997	1998	1999	2000	2001	2002	2003
AGGREGATE MEASURES							
Total Direct Expenditures (Purchases and Pay)	3,160	3,038	2,998	2,983	2,758	2,832	2,856
Indirect Defense Purchases Resulting from Direct Purchases	2,031	1,946	1,950	1,966	1,927	1,979	2,049
Indirect Defense Purchases Resulting from Direct Pay	986	956	932	925	916	909	928
Total Nondefense Expenditures	271,537	275,063	281,572	290,360	296,456	303,147	309,695
Total Output	277,720	281,009	287,458	296,240	302,064	308,875	315,536
Government Compensation: Pay, Military + Civilian	1,184	1,172	1,167	1,164	1,158	1,153	1,157

LARGEST PURCHASES BY INDUSTRIAL SECTORS

Total Direct Expenditures (Purchases and Pay)

Air Transportation	761	726	716	730	581	656	667
Research Labs, Computer and Engineering Services	414	394	385	367	356	353	353
Apparel and Household Textiles	214	193	188	189	145	163	167
Metal Products	107	102	102	101	100	98	97
Other Chemicals	86	83	83	83	82	80	81

Indirect Defense Purchases Resulting from Direct Purchases

Research Labs, Computer and Engineering Services	299	288	287	283	274	279	284
Wholesale Trade	163	157	158	160	159	162	168
Other Chemicals	159	151	151	152	150	153	160
Metal Products	138	133	135	139	140	144	148
Other Nonferrous Metals	106	101	102	104	106	109	112

Texas Summary

Rounded to Millions of 1999 dollars

	1997	1998	1999	2000	2001	2002	2003
AGGREGATE MEASURES							
Total Direct Expenditures (Purchases and Pay)	20,440	19,742	19,599	19,558	19,278	19,277	19,627
Indirect Defense Purchases Resulting from Direct Purchases	11,637	11,278	11,320	11,404	11,157	11,327	11,841
Indirect Defense Purchases Resulting from Direct Pay	5,178	5,010	4,886	4,853	4,802	4,768	4,868
Total Nondefense Expenditures	974,809	992,828	1,011,138	1,034,656	1,052,707	1,071,866	1,092,029
Total Output	1,012,065	1,028,859	1,046,946	1,070,473	1,087,946	1,107,239	1,128,366
Government Compensation: Pay, Military + Civilian	9,254	9,082	9,007	8,970	8,910	8,861	8,926

LARGEST PURCHASES BY INDUSTRIAL SECTORS

Total Direct Expenditures (Purchases and Pay)

Aerospace	3,135	2,950	2,997	3,035	3,137	3,225	3,334
Research Labs, Computer and Engineering Services	2,128	2,039	2,006	1,955	1,947	1,958	2,006
Petroleum Refining Excluding Fuel Oil	859	828	816	828	780	722	760
Fuel Oil	767	738	727	738	694	640	669
Construction	755	711	684	672	670	674	673

Indirect Defense Purchases Resulting from Direct Purchases

Crude Petroleum	1,578	1,530	1,502	1,484	1,391	1,320	1,404
Research Labs, Computer and Engineering Services	1,536	1,488	1,498	1,506	1,501	1,547	1,614
Petroleum Refining Excluding Fuel Oil	1,072	1,036	1,024	1,019	945	907	943
Communications Equipment and Electronic Components	951	962	1,010	1,051	1,095	1,149	1,226
Wholesale Trade	545	524	526	533	527	537	556

Utah Summary

Rounded to Millions of 1999 dollars

	1997	1998	1999	2000	2001	2002	2003
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AGGREGATE MEASURES

Total Direct Expenditures (Purchases and Pay)	2,015	1,918	1,875	1,854	1,818	1,799	1,836
Indirect Defense Purchases Resulting from Direct Purchases	1,109	1,069	1,074	1,081	1,070	1,095	1,136
Indirect Defense Purchases Resulting from Direct Pay	564	546	531	527	521	517	528
Total Nondefense Expenditures	115,250	116,962	119,197	121,782	123,936	126,239	128,539
Total Output	118,939	120,495	122,678	125,245	127,346	129,651	132,039
Government Compensation: Pay, Military + Civilian	1,119	1,079	1,059	1,048	1,030	1,017	1,039

LARGEST PURCHASES BY INDUSTRIAL SECTORS

Total Direct Expenditures (Purchases and Pay)

Research Labs, Computer and Engineering Services	291	273	263	256	255	257	262
Metalworking Machinery	113	94	86	82	79	77	76
Construction	82	77	74	73	73	73	73
Petroleum Refining Excluding Fuel Oil	63	60	59	60	57	52	55
Fuel Oil	58	55	55	55	52	48	50

Indirect Defense Purchases Resulting from Direct Purchases

Research Labs, Computer and Engineering Services	210	199	196	197	197	203	211
Aerospace	142	140	145	143	144	148	152
Communications Equipment and Electronic Components	82	82	86	89	92	95	100
Wholesale Trade	58	56	56	57	56	58	60
Petroleum Refining Excluding Fuel Oil	55	53	52	52	49	47	49

Vermont Summary

Rounded to Millions of 1999 dollars

	1997	1998	1999	2000	2001	2002	2003
AGGREGATE MEASURES							
Total Direct Expenditures (Purchases and Pay)	189	184	184	185	185	186	190
Indirect Defense Purchases Resulting from Direct Purchases	264	261	268	275	279	289	305
Indirect Defense Purchases Resulting from Direct Pay	114	110	107	107	106	105	108
Total Nondefense Expenditures	27,167	27,686	28,413	29,296	29,961	30,647	31,368
Total Output	27,734	28,241	28,973	29,863	30,531	31,228	31,970
Government Compensation: Pay, Military + Civilian	100	99	98	98	97	96	97

LARGEST PURCHASES BY INDUSTRIAL SECTORS

Total Direct Expenditures (Purchases and Pay)

Metal Products	24	24	25	27	27	28	29
Aerospace	21	20	20	21	21	22	22
Research Labs, Computer and Engineering Services	20	19	19	18	17	17	17
Electric Industrial Appliances and Distribution Equipment	4	4	4	4	4	4	5
Construction	4	4	4	3	3	3	3

Indirect Defense Purchases Resulting from Direct Purchases

Communications Equipment and Electronic Components	101	103	110	116	121	127	135
Aerospace	18	17	18	18	18	19	19
Wholesale Trade	15	15	15	15	15	15	16
Research Labs, Computer and Engineering Services	15	14	14	14	13	14	14
Printing and Publishing	11	10	10	10	10	10	10

Virginia Summary

Rounded to Millions of 1999 dollars

	1997	1998	1999	2000	2001	2002	2003
AGGREGATE MEASURES							
Total Direct Expenditures (Purchases and Pay)	24,535	23,743	23,388	23,207	22,487	22,651	23,144
Indirect Defense Purchases Resulting from Direct Purchases	6,785	6,571	6,592	6,647	6,448	6,679	6,916
Indirect Defense Purchases Resulting from Direct Pay	4,967	4,806	4,689	4,662	4,615	4,587	4,686
Total Nondefense Expenditures	497,200	507,058	518,139	530,772	541,168	550,796	561,045
Total Output	533,484	542,174	552,805	565,284	574,714	584,709	595,786
Government Compensation: Pay, Military + Civilian	13,095	12,725	12,548	12,456	12,313	12,202	12,381

LARGEST PURCHASES BY INDUSTRIAL SECTORS

Total Direct Expenditures (Purchases and Pay)							
Research Labs, Computer and Engineering Services	4,623	4,488	4,413	4,311	4,288	4,259	4,314
Non-Automotive Repair Services, Hotels and Lodging	1,104	1,016	994	1,014	688	849	865
Ships and Boats	951	919	909	937	939	967	981
Communications Services	762	760	751	758	785	837	977
Computers	580	570	565	560	561	552	557
Indirect Defense Purchases Resulting from Direct Purchases							
Research Labs, Computer and Engineering Services	3,337	3,274	3,295	3,320	3,306	3,366	3,472
Non-Automotive Repair Services, Hotels and Lodging	1,007	941	937	950	814	910	944
Real Estate	240	231	223	219	215	233	243
Communications Services	160	157	158	160	160	167	181
Wholesale Trade	159	153	154	157	156	159	165

Washington Summary

Rounded to Millions of 1999 dollars

1997 1998 1999 2000 2001 2002 2003

AGGREGATE MEASURES

Total Direct Expenditures (Purchases and Pay)	7,180	6,930	6,840	6,797	6,693	6,668	6,779
Indirect Defense Purchases Resulting from Direct Purchases	3,096	3,033	3,090	3,131	3,121	3,195	3,324
Indirect Defense Purchases Resulting from Direct Pay	1,991	1,928	1,882	1,870	1,850	1,838	1,876
Total Nondefense Expenditures	293,637	298,424	304,522	311,615	317,137	322,735	328,763
Total Output	305,914	310,324	316,341	323,422	328,810	334,445	340,753
Government Compensation: Pay, Military + Civilian	4,286	4,190	4,146	4,124	4,088	4,060	4,102

LARGEST PURCHASES BY INDUSTRIAL SECTORS

Total Direct Expenditures (Purchases and Pay)

Research Labs, Computer and Engineering Services	616	590	579	571	577	583	601
Aerospace	452	424	432	438	454	469	485
Communications Equipment and Electronic Components	309	299	296	287	284	288	299
Construction	251	234	223	219	218	220	219
Petroleum Refining Excluding Fuel Oil	240	231	227	229	215	197	206

Indirect Defense Purchases Resulting from Direct Purchases

Aerospace	1,001	1,013	1,066	1,089	1,111	1,139	1,184
Research Labs, Computer and Engineering Services	445	430	433	440	445	461	484
Wholesale Trade	174	168	169	172	171	175	182
Petroleum Refining Excluding Fuel Oil	116	113	112	112	105	101	106
Other Nonferrous Metals	114	107	108	110	112	115	119

West Virginia Summary

Rounded to Millions of 1999 dollars

	1997	1998	1999	2000	2001	2002	2003
AGGREGATE MEASURES							
Total Direct Expenditures (Purchases and Pay)	431	414	406	403	393	393	395
Indirect Defense Purchases Resulting from Direct Purchases	612	585	583	586	576	585	604
Indirect Defense Purchases Resulting from Direct Pay	271	261	254	251	248	245	250
Total Nondefense Expenditures	75,230	76,131	77,328	79,034	80,309	81,680	83,121
Total Output	76,544	77,391	78,571	80,274	81,526	82,902	84,370
Government Compensation: Pay, Military + Civilian	273	269	267	266	264	262	264

LARGEST PURCHASES BY INDUSTRIAL SECTORS

Total Direct Expenditures (Purchases and Pay)

Construction	69	63	59	58	57	58	58
Medical Instruments and Supplies	22	20	19	19	14	17	17
Research Labs, Computer and Engineering Services	15	15	14	14	13	13	13
Wholesale Trade	12	11	11	11	11	10	10
Aerospace	10	9	8	8	8	8	8

Indirect Defense Purchases Resulting from Direct Purchases

Coal Mining	84	80	80	80	80	80	81
Other Chemicals	80	76	75	75	74	75	78
Ferrous Metals	73	68	68	69	69	71	71
Other Nonferrous Metals	41	39	39	40	41	43	44
Wholesale Trade	35	33	33	34	33	34	35

Wisconsin Summary

Rounded to Millions of 1999 dollars

	1997	1998	1999	2000	2001	2002	2003
AGGREGATE MEASURES							
Total Direct Expenditures (Purchases and Pay)	1,104	1,051	1,044	1,036	1,007	988	985
Indirect Defense Purchases Resulting from Direct Purchases	1,928	1,844	1,844	1,857	1,827	1,864	1,925
Indirect Defense Purchases Resulting from Direct Pay	772	749	731	727	722	718	733
Total Nondefense Expenditures	289,548	292,149	297,419	305,211	310,510	316,110	321,798
Total Output	293,354	295,795	301,039	308,833	314,068	319,682	325,444
Government Compensation: Pay, Military + Civilian	468	460	456	454	450	447	451

LARGEST PURCHASES BY INDUSTRIAL SECTORS

Total Direct Expenditures (Purchases and Pay)

Metal Products	80	78	79	80	81	81	81
Research Labs, Computer and Engineering Services	64	62	61	60	59	59	59
Metalworking Machinery	63	56	61	59	54	43	31
Construction	53	48	46	45	44	45	45
Other Nonelectrical Machinery	39	38	38	38	37	36	37

Indirect Defense Purchases Resulting from Direct Purchases

Metal Products	183	175	177	180	181	185	190
Wholesale Trade	158	152	153	155	154	157	164
Paper	141	134	133	131	128	129	134
Finance and Insurance	121	116	116	116	112	115	120
Printing and Publishing	104	100	100	100	98	99	102

Wyoming Summary

Rounded to Millions of 1999 dollars

	1997	1998	1999	2000	2001	2002	2003
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AGGREGATE MEASURES

Total Direct Expenditures (Purchases and Pay)	343	336	332	332	327	323	327
Indirect Defense Purchases Resulting from Direct Purchases	267	257	255	255	244	243	253
Indirect Defense Purchases Resulting from Direct Pay	149	145	141	140	138	137	140
Total Nondefense Expenditures	23,462	23,883	24,194	24,704	25,066	25,486	25,921
Total Output	24,222	24,620	24,922	25,431	25,776	26,189	26,641
Government Compensation: Pay, Military + Civilian	249	245	244	243	242	241	242

LARGEST PURCHASES BY INDUSTRIAL SECTORS

Total Direct Expenditures (Purchases and Pay)

Petroleum Refining Excluding Fuel Oil	24	23	23	23	22	20	21
Construction	24	23	22	22	22	22	22
Fuel Oil	22	21	21	21	20	18	19
Research Labs, Computer and Engineering Services	6	5	5	5	5	5	5
Electric Utilities	5	5	5	5	5	5	5

Indirect Defense Purchases Resulting from Direct Purchases

Crude Petroleum	73	70	69	68	64	61	65
Petroleum Refining Excluding Fuel Oil	43	41	41	41	38	37	38
Coal Mining	21	21	21	21	21	21	22
Wholesale Trade	10	9	9	9	9	10	10
Nonmetallic Mining	9	8	8	8	8	8	8

Entire United States Summary
Rounded to Millions of 1999 dollars

	1997	1998	1999	2000	2001	2002	2003
AGGREGATE MEASURES							
Total Direct Expenditures (Purchases and Pay)	266,038	256,373	254,207	253,370	249,897	251,389	256,970
Indirect Defense Purchases Resulting from Direct Purchases	130,846	126,071	126,452	127,362	125,324	128,058	133,087
Indirect Defense Purchases Resulting from Direct Pay	67,154	64,957	63,286	62,784	62,097	61,627	62,863
Total Nondefense Expenditures	13,704,205	13,890,347	14,148,625	14,492,186	14,744,684	15,013,977	15,293,739
Total Output	14,168,243	14,337,748	14,592,571	14,935,702	15,182,003	15,455,051	15,746,658
Government Compensation: Pay, Military + Civilian	112,874	110,276	109,073	108,454	107,459	106,671	107,835

LARGEST PURCHASES BY INDUSTRIAL SECTORS

Total Direct Expenditures (Purchases and Pay)							
Research Labs, Computer and Engineering Services	35,444	34,053	33,468	32,661	32,536	32,633	33,329
Aerospace	31,613	29,755	30,197	30,455	31,370	32,259	33,317
Communications Equipment and Electronic Components	7,921	7,680	7,607	7,457	7,458	7,518	7,766
Construction	8,007	7,496	7,188	7,056	7,033	7,093	7,082
Ships and Boats	7,371	7,119	7,057	7,355	7,384	7,645	7,758
Indirect Defense Purchases Resulting from Direct Purchases							
Research Labs, Computer and Engineering Services	25,587	24,843	24,992	25,157	25,087	25,787	26,824
Communications Equipment and Electronic Components	7,501	7,417	7,601	7,761	8,013	8,326	8,834
Wholesale Trade	7,693	7,395	7,431	7,528	7,458	7,616	7,901
Aerospace	6,035	5,914	6,110	6,172	6,254	6,370	6,563
Finance and Insurance	5,630	5,425	5,430	5,468	5,277	5,437	5,661

APPENDIX

Mapping from Industries to Industrial Sectors

National		State-Level	
Ind #	Industry Title	Ind #	Industrial Sector Title
1	Dairy Farm Products	1	Agriculture, Forestry, and Fisheries
2	Poultry and Eggs		
3	Meat Animals and Other Livestock		
4	Cotton		
5	Grains		
6	Tobacco		
7	Fruit, Vegetables, and Other Crops		
8	Forestry Products		
9	Fishery Products		
10	Agriculture, Forestry, and Fishery Services		
11	Iron Ores	2	Iron Ores
12	Copper Ore	3	Nonferrous Metals Mining
13	Other Nonferrous Ores		
14	Coal Mining	4	Coal Mining
15	Natural Gas Extraction	5	Natural Gas
16	Crude Oil Extraction	6	Crude Oil
17	Stone and Clay Quarrying and Mining	7	Nonmetallic Mining
18	Chemical and Fertilizer Minerals Mining		
19	New Construction	8	Construction
20	Maintenance Construction		
21	Guided Missiles and Space Vehicles	44	Aerospace
22	Ammunition, Except Small Arms	28	Metal Products
23	Tanks and Tank Components	46	Other Transportation Equipment
24	Small Arms	28	Metal Products
25	Small Arms Ammunition		
26	Other Ordnance and Accessories		
27	Meat Packing Plants, Sausage and Other Prepared Meats	9	Food and Tobacco
28	Poultry Slaughtering and Processing		
29	Dairy Products, Except Fluid Milk		
30	Fluid Milk		
31	Fish and Seafoods		
32	Preserved Fruits and Vegetables, Frozen Bakery Products		
33	Flour, Cereals, and Other Grain Mill Products		
34	Prepared Animal Feeds		
35	Rice Milling		
36	Wet Corn Milling		
37	Bakery Products		
38	Sugar		
39	Confectionery, Chocolate Products, and Roasted Nuts		
40	Beer, Malt Beverages, and Malt		
41	Wines, Brandy, and Brandy Spirits		
42	Distilled and Blended Liquors		
43	Soft Drinks and Flavorings		
44	Vegetable Oil Mills		

Mapping from Industries to Industrial Sectors

National		State-Level	
Ind #	Industry Title	Ind #	Industrial Sector Title
45	Animal and Marine Fats and Oils	9	Food and Tobacco (cont.)
46	Shortening, Table Oils, and Edible Fats		
47	Roasted Coffee		
48	Miscellaneous Food Preparations		
49	Cigarettes		
50	Cigars		
51	Chewing and Smoking Tobacco and Snuff		
52	Tobacco Stemming and Redrying	10	Textiles (Except Knitting)
53	Broadwoven Fabric Mills		
54	Narrow Fabric Mills		
55	Yarn and Thread Mills, Textile Finishers		
56	Carpets and Rugs		
57	Miscellaneous Textile Goods		
58	Knitting Mills	11	Knitting
59	Apparel	12	Apparel and Household Textiles
60	Household Textile Products		
61	Miscellaneous Fabricated Textile Products		
62	Logging Camps and Contractors	22	Lumber
63	Sawmills and Planing Mills		
64	Millwork and Wood Kitchen Cabinets		
65	Veneer and Plywood		
66	Structural Wood Members, n.e.c.		
67	Prefabricated Wood Buildings and Components		
68	Wood Preserving		
69	Wood Pallets and Skids		
70	Wood Containers		
71	Particleboard and Wood Products, n.e.c.	13	Paper
72	Household Furniture	23	Furniture
73	Office Furniture		
74	Public Building and Related Furniture		
75	Partitions and Fixtures		
76	Furniture and Fixtures, n.e.c.		
77	Pulp Mills	13	Paper
78	Paper Mills, Including Building Paper		
79	Paperboard Mills		
80	Bags, Except Textile Bags		
81	Paperboard Containers and Boxes		
82	Paper Coating and Glazing, Die Cut Paper		
83	Envelopes and Stationery		
84	Converted Paper Products, n.e.c.		
85	Sanitary Paper Products		
86	Newspaper Publishing and Printing	14	Printing and Publishing
87	Periodical Publishing and Printing		
88	Book Publishing and Printing		
89	Miscellaneous Publishing		
90	Commercial Printing		
91	Greeting Card Publishing		
92	Printing Trade Services		
93	Blankbooks and Bookbinding		
94	Manifold Business Forms		

Mapping from Industries to Industrial Sectors

National		State-Level	
Ind #	Industry Title	Ind #	Industrial Sector Title
95	Industrial Inorganic Chemicals	16	Other Chemicals
96	Industrial Organic Chemicals		
97	Gum and Wood Chemicals		
98	Agricultural Chemicals	15	Agricultural Fertilizers
99	Adhesives and Sealants	16	Other Chemicals
100	Explosives		
101	Chemical Preparations, n.e.c.		
102	Plastics Materials and Resins		
103	Synthetic Rubber		
104	Cellulosic Man-Made Fibers		
105	Synthetic Organic Fibers, Except Cellulosic		
106	Drugs	79	Drugs
107	Soaps and Cleaners	16	Other Chemicals
108	Perfumes, Cosmetics, and Other Toilet Preparations		
109	Paints, Varnishes, and Related Products		
110	Petroleum Refining, Except Fuel Oil	17	Petroleum Refining
111	Fuel Oil	18	Fuel Oil
112	Asphalt Paving and Coatings	17	Petroleum Refining
113	Tires and Inner Tubes	19	Rubber Products
114	Fabricated Rubber Products, n.e.c.		
115	Rubber and Plastics Footwear		
116	Rubber and Plastics Hose and Belting		
117	Gaskets, Packing, and Sealing Devices		
118	Miscellaneous Plastic Products	20	Plastic Products
119	Leather Tanning and Finishing	21	Shoes and Leather
120	Boot and Shoe Cut Stock and Findings		
121	Footwear, Except Rubber		
122	Other Leather Goods		
123	Glass and Glass Products, n.e.c.	24	Stone, Clay, and Glass
124	Glass Containers		
125	Cement, Hydraulic		
126	Structural Clay Products		
127	Pottery and Related Products		
128	Concrete and Concrete Products		
129	Lime		
130	Gypsum Products		
131	Cut Stone and Stone Products		
132	Nonmetallic Mineral Products, n.e.c.		
133	Steel Mills, Blast Furnaces, and Rolling and Finishing Mills	25	Ferrous Metals
134	Iron and Steel Foundries		
135	Iron and Steel Forgings		
136	Miscellaneous Primary Metal Products		
137	Primary Smelting and Refining of Copper	26	Copper

Mapping from Industries to Industrial Sectors

National		State-Level	
Ind #	Industry Title	Ind #	Industrial Sector Title
138	Primary Smelting and Refining of Aluminum	27	Other Nonferrous Metals
139	Lead, Zinc, and Other Primary Nonferrous Metals		
140	Copper Rolling and Drawing	26	Copper
141	Aluminum Rolling and Drawing	27	Other Nonferrous Metals
142	Other Nonferrous Rolling and Drawing, and Nonferrous Wire		
143	Aluminum Foundries and Castings		
144	Copper Foundries	26	Copper
145	Nonferrous Castings and Forgings	27	Other Nonferrous Metals
146	Metal Cans	28	Metal Products
147	Metal Shipping Barrels, Drums, Kegs, and Pails		
148	Metal Sanitary Ware and Plumbing Fixtures		
149	Heating Equipment, Except Electrical and Warm Air Furnaces		
150	Fabricated Structural Metal Products		
151	Fabricated Plate Work (Boiler Shops)		
152	Sheet Metal and Other Metal Work		
153	Screw Machine Products, Bolts and Nuts		
154	Automotive Stampings		
155	Crowns and Closures		
156	Metal Stampings, n.e.c.		
157	Cutlery and Hand Tools		
158	Hardware, n.e.c.		
159	Metal Plating, Polishing, and Coating		
160	Metal Foil and Leaf		
161	Miscellaneous Fabricated Wire Products		
162	Steel Springs, Except Wire		
163	Pipes, Valves, and Pipe Fittings		
164	Fabricated Metal Products, n.e.c.		
165	Steam, Gas, and Hydraulic Turbines	29	Engines and Turbines
166	Internal Combustion Engines, n.e.c.		
167	Farm Machinery and Equipment	30	Agricultural Machinery
168	Garden Tractors and Lawn and Garden Equipment		
169	Construction Machinery and Equipment	31	Construction, Mining, and Oil Field Equipment
170	Mining Machinery and Equipment, Except Oil and Gas Machinery		
171	Oil and Gas Field Machinery		
172	Elevators and Moving Stairways	34	Other Nonelectrical Machinery
173	Conveyers, Hoists, and Cranes		
174	Industrial Trucks, Tractors, Trailers, and Stackers		
175	Machine Tools, Metal Cutting Types	32	Metalworking Machinery
176	Machine Tools, Metal Forming Types		
177	Special Dies, Jigs, Molds, and Cutting Tools		
178	Power-Driven Hand Tools		
179	Rolling Mill Machinery and Equipment		
180	Metalworking Machinery, n.e.c.		

Mapping from Industries to Industrial Sectors

National		State-Level	
Ind #	Industry Title	Ind #	Industrial Sector Title
181	Food Products Machinery	33	Special Industry Machinery
182	Textile Machinery		
183	Woodworking Machinery		
184	Paper Industries Machinery		
185	Printing Trades Machinery and Equipment		
186	Special Industrial Machinery, n.e.c.		
187	Pumps and Compressors	34	Other Nonelectrical Machinery
188	Ball and Roller Bearings		
189	Blowers and Exhaust and Ventilation Fans		
190	Industrial Patterns		
191	Packaging Machinery and General Industrial Machinery, n.e.c.		
192	Mechanical Power Transmission Equipment		
193	Industrial Process Furnaces and Ovens		
194	Carburetors, Pistons, Piston Rings, and Valves		
195	Fluid Power Equipment		
196	Scales and Balances	36	Other Office Equipment
197	Industrial and Commercial Machinery, n.e.c.	34	Other Nonelectrical Machinery
198	Electronic Computers	35	Computers
199	Computer Peripheral Equipment		
200	Calculators and Accounting Machinery		
201	Office Machines and Typewriters	36	Other Office Equipment
202	Automatic Merchandising Equipment	37	Service Industry Machinery
203	Commercial Laundry, Dry Cleaning, and Pressing Machines		
204	Air Conditioning, Heating, and Refrigeration Equipment		
205	Measuring and Dispensing Pumps		
206	Service Industry Machinery, n.e.c.		
207	Instruments to Measure Electricity		
208	Transformers	39	Electric Industrial Appliances and Distribution Equipment
209	Switchgear and Switchboard Apparatus		
210	Motors and Generators		
211	Relays and Industrial Controls		
212	Welding and Soldering Equipment		
213	Electrical Industrial Apparatus		
214	Major Household Appliances	40	Household Appliances
215	Other Household Appliances		
216	Electric Lamps, Light Fixtures, and Wiring	41	Other Electrical Equipment
217	Household Audio and Video Equipment	42	TV Sets, Radios, and Phonographs
218	Prerecorded Records and Tapes		
219	Telephones, Switchboards, Modems, Faxes, Etc.	38	Communications Equipment and Electronic Components
220	Radio and TV Broadcasting and Communication Equipment		
221	Electron Tubes		

Mapping from Industries to Industrial Sectors

National		State-Level	
Ind #	Industry Title	Ind #	Industrial Sector Title
222	Semiconductors and Related Devices	38	Communications Equipment and Electronic Components (cont.)
223	Electronic Components, n.e.c.		
224	Storage Batteries	41	Other Electrical Equipment
225	Primary Batteries, Dry and Wet		
226	X-ray and Irradiation Apparatus		
227	Electromedical and Electrotherapeutic Apparatus		
228	Engine Electrical Equipment		
229	Magnetic and Optical Recording Media		
230	Electrical Machinery, Equipment and Supplies, n.e.c.		
231	Truck and Bus Bodies	43	Motor Vehicles
232	Truck Trailers		
233	Motor Vehicles and Passenger Car Bodies		
234	Motor Vehicle Parts and Accessories		
235	Aircraft	44	Aerospace
236	Aircraft and Missile Engines, Propulsion Units and Parts		
237	Aircraft and Missile Parts and Auxiliary Equipment, n.e.c.		
238	Shipbuilding and Repairing	45	Ships and Boats
239	Boat Building and Repairing		
240	Railroad Equipment	46	Other Transportation Equipment
241	Motorcycles, Bicycles, and Parts		
242	Travel Trailers and Campers		
243	Mobile Homes	22	Lumber
244	Motor Homes	43	Motor Vehicles
245	Transportation Equipment, n.e.c.	46	Other Transportation Equipment
246	Search and Navigation Equipment	47	Instruments
247	Laboratory Apparatus and Furniture		
248	Measuring Devices and Environmental Controls		
249	Surgical and Medical Instruments	80	Medical Instruments and Supplies
250	Surgical Appliances and Supplies		
251	Dental Equipment and Supplies		
252	Watches, Clocks, Clockwork Operated Devices and Parts	47	Instruments
253	Laboratory and Optical Instruments		
254	Ophthalmic Goods	81	Ophthalmic Goods
255	Photographic Equipment and Supplies	47	Instruments
256	Jewelry, Precious Metal, Silverware, and Plated Wares	48	Other Manufacturing
257	Musical Instruments		
258	Games, Toys, and Play Vehicles		
259	Sport and Athletic Goods, n.e.c.		
260	Pens, Pencils, and Other Office and Artists' Materials		
261	Costume Jewelry and Notions		

Mapping from Industries to Industrial Sectors

National		State-Level	
Ind #	Industry Title	Ind #	Industrial Sector Title
262	Manufacturing, n.e.c.	48	Other Manufacturing (cont.)
263	Railroads	49	Railroads
264	Local and Suburban Passenger Transportation	50	Trucking and Highway Passenger Transit
265	Trucking and Warehousing		
266	Water Transportation	51	Water Transportation
267	Airlines	52	Air Transportation
268	Pipelines	53	Pipeline
269	Transportation Services	54	Transportation Services
270	Telephone and Telegraph	55	Communications Services
271	Radio and TV Broadcasting		
272	Electric Utilities	56	Electric Utilities
273	Natural Gas	57	Gas Utilities
274	Water, Sewer, Steam, and Irrigation Services	58	Water and Sanitation
275	Wholesale Trade	59	Wholesale Trade
276	Retail Trade	60	Retail Trade
277	Eating and Drinking Places	61	Eating and Drinking Places
278	Banking	62	Finance and Insurance
279	Credit Agencies Other Than Banks		
280	Security and Commodity Brokers, Dealers, Exchanges, and Services		
281	Insurance Carriers		
282	Insurance Agents, Brokers, and Services		
283	Owner-Occupied Dwellings	64	Owner-Occupied Housing
284	Real Estate	63	Real Estate
285	Royalties		
286	Hotels, Rooming Houses, Camps, and Other Lodging Places	65	Nonautomotive Repair Services, Hotels, and Lodging
287	Personal and Repair Services		
288	Personnel Supply Services	66	Research Labs, Computer and Engineering Services
289	Computer and Data Processing Services		
290	Research Laboratories and Management Consulting		
291	Equipment Rental and Leasing Services		
292	Advertising		
293	Other Business Services		
294	Legal Services		
295	Engineering and Architectural Services		
296	Other Professional Services, Including Accounting		

Mapping from Industries to Industrial Sectors

National		State-Level	
Ind #	Industry Title	Ind #	Industrial Sector Title
297	Auto Rental and Leasing	67	Automobile Repairs
298	Auto Repair and Services		
299	Motion Pictures	68	Movies and Amusements
300	Video Tape Rental		
301	Amusements and Recreation Services		
302	Private Hospitals	82	Private Hospitals
303	Physicians, Excluding Dentists	83	Physicians
304	Dentists and Miscellaneous Medical Services	84	Other Medical Services
305	Nursing Homes	85	Nursing Homes
306	Education and Libraries	69	Education and Nonprofit Organizations
307	Social Services		
308	Museums, Nonprofits, Research, and Private Education		
309	Membership Organizations		
310	United States Postal Service	70	Federal, State, and Local Government Enterprises
311	Federal Government Enterprises		
312	State and Local Government Enterprises		
317	Government Industry Compensation	76	Government Industry Compensation

FEEDBACK FORM

1. Did this publication provide the information you needed to interpret the projections in which you were interested? If not, what were the most important missing items?

2. Did the projections for your industry or state seem to be reasonable?

3. Are there other published forecasts with which the projections for your industry or state can be compared?

4. What parts of the projections were most and least useful to you?

MOST

LEAST

<hr/>	Projected direct defense purchases for an industry	<hr/>
<hr/>	Projected indirect defense purchases for an industry	<hr/>
<hr/>	Projected direct defense expenditures for a state	<hr/>
<hr/>	Projected indirect defense expenditures for a state	<hr/>
<hr/>	Projected geographic distribution of direct purchases	<hr/>
<hr/>	Projected geographic distribution of indirect purchases	<hr/>

Other:

5. Comments on the format of the tables in this report:

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